

**SLOVENSKI STANDARD**  
**SIST FprEN IEC 61010-2-**  
**032:2019/oprAA:2020**  
**01-november-2020**

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**Varnostne zahteve za električno opremo za meritve, nadzorovanje in laboratorijsko uporabo - 2-032. del: Posebne zahteve za ročne in ročno vodene tokovne senzorje za električno preskušanje in meritve**

Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-032: Particular requirements for hand-held and hand-manipulated current sensors for electrical test and measurement

**iTeh STANDARD PREVIEW**

Sicherheitsbestimmungen für elektrische Mess-, Steuer-, Regel- und Laborgeräte - Teil 2 -032: Besondere Anforderungen für handgehaltene und handbediente Stromsonden für elektrische Prüfungen und Messungen

<https://standards.iteh.ai/catalog/standards/sist/8902be69-3e1c-4b0b-a13d-41f50bf50105/sist-fpr-en-iec-61010-2-032-2019-opr-aa-2020>

Exigences de sécurité pour appareils électriques de mesurage, de régulation et de laboratoire - Partie 2-032 : Exigences particulières pour les capteurs de courant, portatifs et manipulés manuellement, pour essai électrique et mesurage

**Ta slovenski standard je istoveten z: FprEN IEC 61010-2-032:2019/prAA**

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**ICS:**

|           |  |   |
|-----------|--|---|
| 19.080    | Električno in elektronsko preskušanje        | Electrical and electronic testing           |
| 71.040.10 | Kemijski laboratoriji. Laboratorijska oprema | Chemical laboratories. Laboratory equipment |

**SIST FprEN IEC 61010-2-032:2019/oprAA:2020**

**en,fr,de**

**iTeh STANDARD PREVIEW**  
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[SIST FprEN IEC 61010-2-032:2019/oprAA:2020](https://standards.iteh.ai/catalog/standards/sist/8902be69-3e1c-4b0b-a13d-41f50bf50105/sist-fpren-iec-61010-2-032-2019-opraa-2020)  
<https://standards.iteh.ai/catalog/standards/sist/8902be69-3e1c-4b0b-a13d-41f50bf50105/sist-fpren-iec-61010-2-032-2019-opraa-2020>

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**FprEN IEC 61010-2-  
032:2019**

**prAA**

September 2020

ICS

English Version

**Safety requirements for electrical equipment for measurement,  
control and laboratory use - Part 2-032: Particular requirements  
for hand-held and hand-manipulated current sensors for  
electrical test and measurement**

To be completed

To be completed

This draft amendment prAA, if approved, will modify the European Standard FprEN IEC 61010-2-032:2019; it is submitted to CENELEC members for enquiry.

Deadline for CENELEC: 2020-11-27.

It has been drawn up by CLC/TC 66X.

If this draft becomes an amendment, CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

This draft amendment was established by CENELEC 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, Turkey and the United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

**FprEN IEC 61010-2-032:2019/prAA:2020 (E)****European foreword**

This document (FprEN IEC 61010-2-032:2019/prAA:2020) has been prepared by CLC/TC 66X "Safety of measuring, control, and laboratory equipment".

This document is currently submitted to the Enquiry.

The following dates are proposed:

- latest date by which the existence of this document has to be announced at national level (doa) dor + 6 months
- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) dor + 12 months
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) dor + 36 months (to be confirmed or modified when voting)

This document amends FprEN 61010-2-032:2019.

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

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

[SIST FprEN IEC 61010-2-032:2019/oprAA:2020  
https://standards.iteh.ai/catalog/standards/sist/8902be69-3e1c-4b0b-a13d-41f50bf50105/sist-fpren-iec-61010-2-032-2019-opraa-2020](https://standards.iteh.ai/catalog/standards/sist/8902be69-3e1c-4b0b-a13d-41f50bf50105/sist-fpren-iec-61010-2-032-2019-opraa-2020)

## 1 General

Change the term “PROTECTIVE BARRIER” to “PROTECTIVE FINGERGUARD” throughout the document, except for item 1) of K.101.4.1.3.

## 2 Modification to 3.2, “Parts and accessories”

Add the following new term and definition:

### “3.2.103

#### PROTECTIVE FINGERGUARD

part of the ENCLOSURE that indicates the limit of safe access and that reduces the RISK of the OPERATOR touching HAZARDOUS LIVE parts”

## 3 Modification to 6.8.3.2, “The d.c. voltage test”

Add a new sentence at the beginning of the first paragraph:

“The voltage tester shall have a regulated output capable of maintaining the test voltage throughout the test within  $\pm 5\%$  of the specified value.”

## 4 Modifications to 8.101, “JAW ENDS abrasion test”

Replace the last sentence of the first paragraph as follows:

“The requirements of this subclause do not apply to current sensors with a sliding JAW, current sensors with fork-style JAWS and flexible current sensors.”

Replace the sixth paragraph with the new sixth paragraph as follows:

“The samples are moved along the plate over a distance of 200 mm, or a lesser amount if restricted by the design, for 50 cycles – one cycle consisting of one forward and one reverse movement – so as to abrade the closing point of the JAWS (see Figure 103). The emery cloth is replaced after each sample has been treated.

- a) If the JAW ENDS include a wear indicator, the test has a minimum of 25 cycles. The test is terminated 2 cycles after the wear indicator becomes visible, but not more than 50 cycles.

NOTE 25 cycles are performed if the wear indicator becomes visible before the 23<sup>rd</sup> cycle and 50 cycles are performed if the wear indicator is not visible before the 48<sup>th</sup> cycle.

- b) If the JAW ENDS do not include a wear indicator, the test is terminated when 50 cycles are completed.”

## 5 Modifications to K.101.4.1, “General”

Replace the second paragraph with the following note:

“NOTE 1 The manufacturer is supposed to take the expected life of the current sensor into account when selecting insulating materials.”

As a result of this, renumber the existing note as NOTE 2.

## 6 Addition of Annex ZA, “Normative references to international publications with their corresponding European publications”

Add the following Annex ZA:

“

## 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](http://www.cenelec.eu).

*Annex ZA of EN 61010-1:2010<sup>1</sup> is applicable, with the following addition:*

| Publication            | Year         | Title  | EN/HD and IEC/ISO                | Year |
|------------------------|--------------|--|----------------------------------|------|
| IEC 61010-031<br>+AMD1 | 2015<br>2018 | 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 | EN 61010-031<br>+A1 <sup>2</sup> | 2015 |
| IEC 61180              | -            | High-voltage test techniques for low-voltage equipment – Definitions, test and procedure requirements, test equipment  | EN 61180                         | 2016 |

”

<sup>1</sup> As impacted by EN 61010-1:2010/A1:2019 and EN 61010-1:2010/A1:2019/AC:2019-04.

<sup>2</sup> To be published. Stage at the time of publication: EN 61010-031:2015/FprA1:2018.

## 7 Addition of Annex ZZ, “Relationship between this European standard and the safety objectives of Directive 2014/35/EU [2014 OJ L96] aimed to be covered”

Add the following Annex ZZ:

“

### Annex ZZ (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 | 5<br>EE.3   |  |
| 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  | 5.4, 6.6, 6.10, 6.11,<br>101<br>Annex D, Annex F,<br>Annex EE           |  |
| 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                     | 1, 2, 3, 5.4<br>17 (for hazards not covered by Clauses 6–16)<br>Annex F | See also the details in points 2 and 3 |

## FprEN IEC 61010-2-032:2019/prAA:2020 (E)

| Safety objectives of Directive 2014/35/EU (Annex I)  | Clause(s) / subclause(s) of this EN   | Remarks / Notes |
|--|---|-----------------|
| <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      | 4, 6.1 – 6.11, 9.6, 11.6, 14.4, 101, 102<br>Annex D, Annex F, Annex K, Annex EE |                 |
| 2 (b) temperatures, arcs or radiation which would cause a danger, are not produced   | 4, 9.5, 9.6, 10.1 –10.5, 12, 101.3.2, 101.4                                     |                 |
| 2 (c) persons, domestic animals and property are adequately protected against non-electrical dangers caused by the electrical equipment which are revealed by experience | 4, 7.2- 7.7<br>9, 12.3, 12.5, 12.6, 13.1, 13.2, 16.2, 101.5<br>Annex EE         |                 |
| 2 (d) the insulation is suitable for foreseeable conditions  | 4, 6.7<br>Annex D, Annex K  |                 |
| <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  | 4, 7, 8   |                 |
| 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       | 1.4, 4, 6.7.2.2.1, 10.5, 11.6, 14.3, 14.8, 15                                   |                 |
| 3 (c) does not endanger persons, domestic animals and property in foreseeable conditions of overload   | 4, 9, 14, 16.1, 101<br>Annex EE   |                 |

**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.”