SLOVENSKI STANDARD
oSIST prEN 61010-2-051:2018/oprAA:2021

01-januar-2021

Varnostne zahteve za električno opremo za meritve, nadzor in laboratorijsko uporabo - 2-051. del: Posebne zahteve za laboratorijsko opremo za mešanje in premešavanje

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

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

Exigences de sécurité pour appareils électriques de mesurage, de régulation et de laboratoire - Partie 2-051 : Exigences particulières pour appareils de laboratoire utilisés pour mélanger et agiter

Ta slovenski standard je istoveten z: **prEN 61010-2-051:2017/prAA**

ICS:

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

oSIST prEN 61010-2-051:2018/oprAA:2021 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 61010-2-051:2017

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November 2020

ICS 19.080; 71.040.20

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

Exigences de sécurité pour appareils électriques de mesurage, de régulation et de laboratoire - Partie 2-051 : Exigences particulières pour appareils de laboratoire utilisés pour mélanger et agiter

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

This draft amendment prAA, if approved, will modify the European Standard prEN 61010-2-051:2017; it is submitted to CENELEC members for enquiry.
Deadline for CENELEC: 2021-02-19.

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

European foreword

This document (prEN 61010-2-051:2017/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 prEN 61010-2-051:2017.

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.

1 Additions to Clause 2, "Normative references"

Add the following normative references to Clause 2:

"

EN IEC 60079-0:2018, *Explosive atmospheres - Part 0: Equipment - General requirements (IEC 60079-0:2017)*

EN 60079-1:2014, *Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" (IEC 60079-1:2014)*

EN 60079-2:2014, *Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"(IEC 60079-2:2014)*

EN 60079-5:2015, *Explosive atmospheres - Part 5: Equipment protection by powder filling "q" (IEC 60079-5:2015)*

EN 60079-7:2015,[1] *Explosive atmospheres - Part 7: Equipment protection by increased safety “e” (IEC 60079-7:2015)*

EN 60079-11:2012, *Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i" (IEC 60079-11:2011)*

EN IEC 60079-15:2019, *Explosive atmospheres - Part 15: Equipment protection by type of protection "n" (IEC 60079-15:2017)*

EN 60079-18:2015,[2] *Explosive atmospheres - Part 18: Equipment protection by encapsulation “m” (IEC 60079-18:2014)*"

2 Modification to 7.3.101, “Speed controls”

Replace the conformity clause with the following:

“*Conformity is checked by inspection and the following test:*

The speed control is overridden to achieve the maximum speed the moving parts can achieve. The equipment shall be observed for a duration as specified in 4.4.3 or until the power to the moving parts is interrupted permanently. The conformity criteria of 4.4.4.1 to 4.4.4.3 shall be observed and the requirements of 7.3.1 and 7.7 shall be met during the test.”

3 Modification to 7.3.104, “HAZARDS related to application”

Replace Example b) with the following:

“b) Where a HAZARD could be caused by excessive torque applied to high-viscosity material, for example through glass breakage, the safety device shall initiate an alarm signal if the torque rises above a preset level.”

4 Modification to 7.7, “Expelled parts”

Add the following new paragraph before the note:

“Expelled parts include sample materials and fluids being mixed or stirred.”

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[1] As impacted by EN 60079-7:2015/A1:2018.

[2] As impacted by EN 60079-18:2015/A1:2017.

5 Modification to 15.1, “General”

Replace the second (new) paragraph by the following:

“As an alternative method, for interlock systems containing electric/electronic or programmable components (E/E/P components) the reliability and design requirements **of 15.2 and 15.3** can be determined by applying for example IEC 62061 (SIL) or ISO 13849 (all parts) (PL) or other solutions providing equivalent functional safety.”

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 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.cenelec.eu.

The Annex ZA of EN 61010-1:2010/A1:2019 is applicable with the following additions:

Publication	Year	Title	EN/HD	Year
		Explosive atmospheres - Part 0: Equipment - General requirements	EN IEC 60079-0	2018
		Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"	EN 60079-1	2014
		Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"	EN 60079-2	2014
		Explosive atmospheres - Part 5: Equipment protection by powder filling "q"	EN 60079-5	2015
		Explosive atmospheres - Part 7: Equipment protection by increased safety "e"	EN 60079-7 +A1	2015 2018
		Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"	EN 60079-11	2012
		Explosive atmospheres - Part 15: Equipment protection by type of protection "n"	EN IEC 60079-15	2019
		Explosive atmospheres - Part 18: Equipment protection by encapsulation "m"	EN 60079-18 +A1	2015 2017

"

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) / sub-clause(s) of this EN	Remarks / Notes
1. General conditions		
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	5.1 5.2 5.3 5.4	
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 Annex F	
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 assured, providing that the equipment is used in applications for which it was made and is adequately maintained	5.4 Annex F 17 (for hazards not covered by Clauses 6–16) See also the details in points 2 and 3	
2. Protection against hazards arising from the electrical equipment Measures of a technical nature shall be laid down in accordance with point 1, in order to ensure that:		