

SLOVENSKI STANDARD

SIST EN 61326-1:2013

01-marec-2013

Nadomešča:
SIST EN 61326-1:2007

Električna oprema za merjenje, kontrolo in laboratorijsko uporabo - Zahteve za elektromagnetno združljivost (EMC) - 1. del: Splošne zahteve (IEC 61326-1:2012)

Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements (IEC 61326-1:2012)

Elektrische Mess-, Steuer-, Regel- und Laborgeräte - EMV-Anforderungen – Teil 1: Allgemeine Anforderungen (IEC 61326-1:2012)

Matériel électrique de mesure, de commande et de laboratoire - Exigences relatives à la CEM - Partie 1: Exigences générales (CEI 61326-1:2012)

Ta slovenski standard je istoveten z: **EN 61326-1:2013**

ICS:

19.080	Električno in elektronsko preskušanje	Electrical and electronic testing
33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general

SIST EN 61326-1:2013 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 61326-1:2013

<https://standards.iteh.ai/catalog/standards/sist/31f17ec8-2e20-4477-968b-78b228bfe609/sist-en-61326-1-2013>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61326-1

January 2013

ICS 17.220; 19.080; 25.040.40; 33.100

Supersedes EN 61326-1:2006

English version

**Electrical equipment for measurement, control and laboratory use -
EMC requirements -
Part 1: General requirements
(IEC 61326-1:2012)**

Matériel électrique de mesure, de
commande et de laboratoire -
Exigences relatives à la CEM -
Partie 1: Exigences générales
(CEI 61326-1:2012)

Elektrische Mess-, Steuer-, Regel- und
Laborgeräte -
EMV-Anforderungen -
Teil 1: Allgemeine Anforderungen
(IEC 61326-1:2012)

**iTeh STANDARD PREVIEW
(standards.iteh.ai)**

This European Standard was approved by CENELEC on 2012-08-14. 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.

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

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 65A/628/FDIS, future edition 2 of IEC 61326-1, prepared by SC 65A, "System aspects", of IEC TC 65, "Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61326-1:2013.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2013-07-11
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-08-14

This document supersedes EN 61326-1:2006.

EN 61326-1:2013 includes the following significant technical changes with respect to EN 61326-1:2006:

- the immunity test levels and performance criteria have been reviewed;
- requirements for portable test and measurement equipment have been clarified and amended;
- the description of the electromagnetic environments has been improved.

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.

[SIST EN 61326-1:2013](https://standards.iteh.ai/catalog/standards/sist/31f17ec8-2e20-4477-968b-78c2ab1c607/sist-en-61326-1-2013)

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.

Endorsement notice

The text of the International Standard IEC 61326-1:2012 was approved by CENELEC as a European Standard without any modification.

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

IEC 60359	NOTE	Harmonized as EN 60359.
IEC 61000-6-1:2005	NOTE	Harmonized as EN 61000-6-1:2007 (not modified).
IEC 61000-6-2:2005	NOTE	Harmonized as EN 61000-6-2:2005 (not modified).
IEC 61010 series	NOTE	Harmonized in EN 61010 series (not modified).
IEC 61326-2 series	NOTE	Harmonized in EN 61326-2 series (not modified).
IEC 61326-2-2	NOTE	Harmonized as EN 61326-2-2.

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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050	Series	International Electrotechnical Vocabulary	-	-
IEC 61000-3-2 + A1 + A2	2005 2008 2009	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current \leq 16 A per phase)	EN 61000-3-2 + A1 + A2	2006 2009 2009
IEC 61000-3-3	2008	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current \leq 16 A per phase and not subject to conditional connection	EN 61000-3-3	2008
IEC 61000-3-11	2000	Electromagnetic compatibility (EMC) - Part 3-11: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, Equipment with rated current \leq 75 A and subject to conditional connection	EN 61000-3-11	2000
IEC 61000-3-12	2011	Electromagnetic compatibility (EMC) - Part 3-12: Limits - Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current $>$ 16 A and \leq 75 A per phase	EN 61000-3-12	2011
IEC 61000-4-2	2008	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	EN 61000-4-2	2009
IEC 61000-4-3 + A1 + A2	2006 2007 2010	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN 61000-4-3 + A1 + A2	2006 2008 2010
IEC 61000-4-4 + corr. June + A1	2004 2007 2010	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	EN 61000-4-4 + A1	2004 2010
IEC 61000-4-5 + corr. October	2005 2009	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	EN 61000-4-5	2006

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61000-4-6	2008	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	EN 61000-4-6	2009
IEC 61000-4-8	2009	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test	EN 61000-4-8	2010
IEC 61000-4-11	2004	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	EN 61000-4-11	2004
CISPR 11 (mod) + A1	2009	Industrial, scientific and medical equipment -	EN 55011	2009
	2010	Radio-frequency disturbance characteristics - Limits and methods of measurement	+ A1	2010

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 61326-1:2013](https://standards.iteh.ai/catalog/standards/sist/31f17ec8-2e20-4477-968b-78b228bfe609/sist-en-61326-1-2013)

<https://standards.iteh.ai/catalog/standards/sist/31f17ec8-2e20-4477-968b-78b228bfe609/sist-en-61326-1-2013>

Annex ZZ (informative)

Coverage of Essential Requirements of EU Directives

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers protection requirements of Annex I, Article 1 of the EC Directive 2004/108/EC.

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directive[s] concerned.

NOTE Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 61326-1:2013](https://standards.iteh.ai/catalog/standards/sist/31f17ec8-2e20-4477-968b-78b228bfe609/sist-en-61326-1-2013)

<https://standards.iteh.ai/catalog/standards/sist/31f17ec8-2e20-4477-968b-78b228bfe609/sist-en-61326-1-2013>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 61326-1:2013

<https://standards.iteh.ai/catalog/standards/sist/31f17ec8-2e20-4477-968b-78b228bfe609/sist-en-61326-1-2013>



IEC 61326-1

Edition 2.0 2012-07

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Electrical equipment for measurement, control and laboratory use – EMC requirements –
Part 1: General requirements**

**Matériel électrique de mesure, de commande et de laboratoire – Exigences relatives à la CEM –
Partie 1: Exigences générales**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX

S

ICS 17.220; 19.080; 25.040.40; 33.100

ISBN 978-2-83220-207-4

**Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references	8
3 Terms and definitions	9
4 General	11
5 EMC test plan.....	12
5.1 General	12
5.2 Configuration of EUT during testing.....	12
5.2.1 General	12
5.2.2 Composition of EUT.....	12
5.2.3 Assembly of EUT	12
5.2.4 I/O ports	12
5.2.5 Auxiliary equipment	12
5.2.6 Cabling and earthing (grounding).....	12
5.3 Operation conditions of EUT during testing.....	13
5.3.1 Operation modes.....	13
5.3.2 Environmental conditions.....	13
5.3.3 EUT software during test.....	13
5.4 Specification of functional performance	13
5.5 Test description.....	13
6 Immunity requirements.....	13
6.1 Conditions during the tests	13
6.2 Immunity test requirements	13
6.3 Random aspects.....	16
6.4 Performance criteria	17
6.4.1 General	17
6.4.2 Performance criterion A.....	17
6.4.3 Performance criterion B	17
6.4.4 Performance criterion C.....	17
7 Emission requirements	17
7.1 Conditions during measurements	17
7.2 Emission limits	18
8 Test results and test report.....	18
9 Instructions for use	18
Annex A (normative) Immunity test requirements for portable test and measurement equipment powered by battery or from the circuit being measured	19
Bibliography.....	20
Figure 1 – Examples of ports	11
Table 1 – Immunity test requirements for equipment intended to be used in a basic electromagnetic environment	14
Table 2 – Immunity test requirements for equipment intended to be used in an industrial electromagnetic environment	15

Table 3 – Immunity test requirements for equipment intended to be used in a controlled electromagnetic environment 16

Table A.1 – Immunity test requirements for portable test and measurement equipment..... 19

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 61326-1:2013](https://standards.iteh.ai/catalog/standards/sist/31f17ec8-2e20-4477-968b-78b228bfe609/sist-en-61326-1-2013)

<https://standards.iteh.ai/catalog/standards/sist/31f17ec8-2e20-4477-968b-78b228bfe609/sist-en-61326-1-2013>