

# SLOVENSKI STANDARD

## SIST EN 61326-3-1:2008

01-september-2008

### Nadomešča:

SIST EN 61326:1998

SIST EN 61326:1998/A1:1998

SIST EN 61326:1998/A2:2002

SIST EN 61326:1998/A3:2004

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**Električna oprema za merjenje, nadzor in laboratorijsko uporabo - Zahteve elektromagnetne združljivost (EMC) - 3-1. del: Zahteve za odpornost opreme, ki opravlja ali pa je namenjena za opravljanje funkcij povezanih z varnostjo (funkcijska varnost) - Splošna industrijska uporaba (IEC 61326-3-1:2008)**

Electrical equipment for measurement, control and laboratory use - EMC requirements -- Part 3-1: Immunity requirements for safety-related systems and for equipment intended to perform safety-related functions (functional safety) - General industrial applications

Elektrische Mess-, Steuer-, Regel- und Laborgeräte - EMV-Anforderungen - Teil 3-1: Störfestigkeitsanforderungen für sicherheitsbezogene Systeme und für Geräte, die für sicherheitsbezogene Funktionen vorgesehen sind (Funktionale Sicherheit) - Allgemeine industrielle Anwendungen

**Ta slovenski standard je istoveten z: EN 61326-3-1:2008**

### ICS:

25.040.40	Merjenje in krmiljenje industrijskih postopkov	Industrial process measurement and control
33.100.20	Imunost	Immunity

**SIST EN 61326-3-1:2008**

**en,fr,de**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61326-3-1**

June 2008

ICS 25.040.40; 33.100.20

Partially supersedes EN 61326:1997 + A1:1998 + A2:2002 + A3:2003

English version

**Electrical equipment for measurement, control and laboratory use -  
EMC requirements -  
Part 3-1: Immunity requirements for safety-related systems  
and for equipment intended to perform safety-related functions  
(functional safety) -  
General industrial applications  
(IEC 61326-3-1:2008)**

Matériel électrique de mesure,  
de commande et de laboratoire -  
Exigences relatives à la CEM -  
Partie 3-1: Exigences d'immunité  
pour les systèmes relatifs à la sécurité  
et pour les matériels destinés à réaliser des  
fonctions relatives à la sécurité (sécurité  
fonctionnelle) -  
Applications industrielles générales  
(CEI 61326-3-1:2008)

Elektrische Mess-, Steuer-,  
Regel- und Laborgeräte -  
EMV-Anforderungen -  
Teil 3-1: Störfestigkeitsanforderungen  
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(IEC 61326-3-1:2008)

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This European Standard was approved by CENELEC on 2008-06-01. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

**CENELEC**

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 65A/500/FDIS, future edition 1 of IEC 61326-3-1, 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 was approved by CENELEC as EN 61326-3-1 on 2008-06-01.

The EN 61326 series supersedes EN 61326:1997 + corrigendum September 1998 + A1:1998 + A2:2001 + A3:2003.

This standard is to be used in conjunction with EN 61326-1.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2009-03-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2011-06-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61326-3-1:2008 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 60204-1	NOTE Harmonized as EN 60204-1:2006 (modified).
IEC 61508-4	NOTE Harmonized as EN 61508-4:2001 (not modified).
IEC 61511	NOTE Harmonized in EN 61511 series (not modified).

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## Annex ZA (normative)

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

The following referenced documents are indispensable for the application 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 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 60050-161	- <sup>1)</sup>	International Electrotechnical Vocabulary (IEV) - Chapter 161: Electromagnetic compatibility	-	-
IEC 61000-4-2 A1 A2	1995 1998 2000	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	EN 61000-4-2 A1 A2	1995 1998 2001
IEC 61000-4-3	2006	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated radio-frequency, electromagnetic field immunity test	EN 61000-4-3	2006
IEC 61000-4-4	2004	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	EN 61000-4-4	2004
IEC 61000-4-5	2005	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	EN 61000-4-5	2006
IEC 61000-4-6 + A1 + A2	2003 2004 2006	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	EN 61000-4-6 + corr. August	2007 2007
IEC 61000-4-8 A1	1993 2000	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test	EN 61000-4-8 A1	1993 2001
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
IEC 61000-4-16 A1	1998 2001	Electromagnetic compatibility (EMC) - Part 4-16: Testing and measurement techniques - Test for immunity to conducted, common mode disturbances in the frequency range 0 Hz to 150 kHz	EN 61000-4-16 A1	1998 2004

<sup>1)</sup> Undated reference.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61000-4-29	2000	Electromagnetic compatibility (EMC) - Part 4-29: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations on d.c. input power port immunity tests	EN 61000-4-29	2000
IEC 61000-6-2	2005	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments	EN 61000-6-2 + corr. September	2005 2005
IEC 61326-1	2005	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	EN 61326-1	2006
IEC 61326-2-1	2005	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-1: Particular requirements - Test configurations, operational conditions and performance criteria for sensitive test and measurement equipment for EMC unprotected applications	EN 61326-2-1	2006
IEC 61326-2-2	2005	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-2: Particular requirements - Test configurations, operational conditions and performance criteria for portable test, measuring and monitoring equipment used in low-voltage distribution systems	EN 61326-2-2	2006
IEC 61326-2-3	2006	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-3: Particular requirements - Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning	EN 61326-2-3	2006
IEC 61326-2-4	2006	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-4: Particular requirements - Test configurations, operational conditions and performance criteria for insulation monitoring devices according to IEC 61557-8 and for equipment for insulation fault location according to IEC 61557-9	EN 61326-2-4	2006
IEC 61326-2-5	2006	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-5: Particular requirements - Test configurations, operational conditions and performance criteria for field devices with interfaces according to IEC 61784-1, CP 3/2	EN 61326-2-5	2006

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61326-3-2	2008	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 3-2: Immunity requirements for safety-related systems and for equipment intended to perform safety-related functions (functional safety) - Industrial applications with specified electromagnetic environment	EN 61326-3-2	2008
IEC 61508-2	2000	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 2: Requirements for electrical/electronic/programmable electronic safety-related systems	EN 61508-2	2001
ISO/IEC Guide 51	1999	Safety aspects - Guidelines for their inclusion - in standards		-

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IEC 61326-3-1

Edition 1.0 2008-01

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 3-1: Immunity requirements for safety-related systems and for equipment intended to perform safety-related functions (functional safety) – General industrial applications**

**Matériel électrique de mesure, de commande et de laboratoire – Exigences relatives à la CEM –**

**Partie 3-1: Exigences d'immunité pour les systèmes relatifs à la sécurité et pour les matériels destinés à réaliser des fonctions relatives à la sécurité (sécurité fonctionnelle) – Applications industrielles générales**

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CODE PRIX

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## CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	9
2 Normative references.....	9
3 Terms and definitions.....	11
4 General.....	13
5 EMC test plan.....	13
5.1 General.....	13
5.2 Configuration of EUT during testing.....	14
5.2.1 General.....	14
5.2.2 Composition of EUT.....	14
5.2.3 Assembly of EUT.....	14
5.2.4 I/O ports.....	14
5.2.5 Auxiliary equipment.....	14
5.2.6 Cabling and earthing (grounding).....	14
5.3 Operation conditions of EUT during testing.....	14
5.3.1 Operation modes.....	14
5.3.2 Environmental conditions.....	14
5.3.3 EUT software during test.....	15
5.4 Specification of performance criteria.....	15
5.5 Test description.....	15
6 Performance criteria.....	15
6.1 Performance criteria A, B and C.....	15
6.2 Performance criterion FS.....	15
6.3 Application of the performance criterion FS.....	16
7 Immunity requirements.....	16
8 Test set-up and test philosophy for EUTs with functions intended for safety applications.....	22
8.1 Testing of safety-related systems and equipment intended to be used in safety-related systems.....	22
8.2 Test philosophy for equipment intended for use in safety-related systems.....	23
8.3 Test philosophy for safety-related systems.....	24
8.4 Test configuration.....	24
8.5 Monitoring.....	24
9 Test results and test report.....	25
Annex A (informative) Evaluation of electromagnetic phenomena.....	29
Annex B (informative) Allowed effects during immunity tests.....	33
Bibliography.....	38
Figure 1 – Correlation between the standards IEC 61326-1, IEC 61326-2-X, IEC 61326-3-1 and IEC 61326-3-2.....	8
Figure 2 – Typical test set-up for equipment intended for use in a safety-related system integrated into a representative safety-related system during test.....	26

Figure 3 – Typical test set-up for equipment intended for use in safety-related system tested stand-alone .....	27
Figure 4 – Typical test set-up for a safety-related system .....	28
Figure A.1 – Emission/immunity levels and compatibility level, with an example of emission/immunity levels for a single emitter and susceptor, as a function of some independent variables (see IEC 61000-1-1) .....	30
Table 1a – Immunity test requirements for equipment intended for use in industrial locations – Enclosure port.....	17
Table 1b – Immunity test requirements for equipment intended for use in industrial locations – Input and output a.c. power ports .....	18
Table 1c – Immunity test requirements for equipment intended for use in industrial locations – Input and output d.c. power ports .....	19
Table 1d – Immunity test requirements for equipment intended for use in industrial locations – I/O signal/control ports .....	20
Table 1e – Immunity test requirements for equipment intended for use in industrial locations – I/O signal/control ports connected direct to power supply networks .....	21
Table 1f – Immunity test requirements for equipment intended for use in industrial locations – Functional earth port .....	21
Table 2 – Selected frequencies for electromagnetic field tests .....	22
Table 3 – Selected frequencies for conducted r.f. tests .....	22
Table 4 – Applicable performance criteria and observed behaviour during test for equipment intended for use in safety-related systems .....	23
Table A.1 – Exemplary considerations on electromagnetic phenomena and test levels with regard to functional safety in industrial applications .....	32
Table B.1 – Allowed effects during immunity tests on functions of equipment.....	34
Table B.2 – Allowed effects during immunity tests on functions of a system .....	36

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTRICAL EQUIPMENT FOR MEASUREMENT,  
CONTROL AND LABORATORY USE –  
EMC REQUIREMENTS –**

**Part 3-1: Immunity requirements for safety-related  
systems and for equipment intended to perform  
safety-related functions (functional safety) –  
General industrial applications**

## FOREWORD

- 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 61326-3-1 has been prepared by subcommittee 65A: System aspects, of IEC technical committee 65: Industrial-process measurement and control.

The IEC 61326 series cancels and replaces IEC 61326:2002 and constitutes a technical revision.

IEC 61326-3-1 is to be read in conjunction with IEC 61326-1.

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

FDIS	Report on voting
65A/500/FDIS	65A/505/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 publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all the parts of the IEC 61326 series, under the general title *Electrical equipment for measurement, control and laboratory use – EMC requirements*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site 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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