

# SLOVENSKI STANDARD

## SIST EN 61298-3:2009

01-september-2009

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Process measurement and control devices - General methods and procedures for evaluating performance -- Part 3: Tests for the effects of influence quantities

Prozessmess-, -steuer- und -regelgeräte – Allgemeine Methoden und Verfahren für die Bewertung des Betriebsverhaltens – Teil 3: Prüfungen für die Wirkungen von Einflussgrößen

Dispositifs de mesure et de commande de processus - Méthodes et procédures générales d'évaluation des performances -- Partie 3: Essais pour la détermination des effets des grandeurs d'influence

**Ta slovenski standard je istoveten z: EN 61298-3:2008**

### ICS:

25.040.40	Merjenje in krmiljenje industrijskih postopkov	Industrial process measurement and control
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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

# EN 61298-3

November 2008

ICS 25.040.40

Supersedes EN 61298-3:1998

English version

**Process measurement and control devices -  
General methods and procedures for evaluating performance -  
Part 3: Tests for the effects of influence quantities  
(IEC 61298-3:2008)**

Dispositifs de mesure  
et de commande de processus -  
Méthodes et procédures générales  
d'évaluation des performances -  
Partie 3: Essais pour la détermination  
des effets des grandeurs d'influence  
(CEI 61298-3:2008)

Prozessmess-, -steuer- und -regelgeräte -  
Allgemeine Methoden und Verfahren für  
die Bewertung des Betriebsverhaltens -  
Teil 3: Prüfungen der Auswirkungen  
von Einflussgrößen  
(IEC 61298-3:2008)

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This European Standard was approved by CENELEC on 2008-11-01. 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 65B/687/FDIS, future edition 2 of IEC 61298-3, prepared by SC 65B, Devices & process analysis, 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 61298-3 on 2008-11-01.

This European Standard supersedes EN 61298-3:1998.

EN 61298-3:2008 is a general revision with respect to EN 61298-3:1998 and does not include any significant changes (see Introduction).

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) 2009-08-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2011-11-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61298-3:2008 was approved by CENELEC as a European Standard without any modification.

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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 60050-300	- <sup>1)</sup>	International Electrotechnical Vocabulary (IEV) - Electrical and electronic measurements and measuring instruments - Part 311: General terms relating to measurements - Part 312: General terms relating to electrical measurements - Part 313: Types of electrical measuring instruments - Part 314: Specific terms according to the type of instrument	-	-
IEC 60050-351	- <sup>1)</sup>	International Electrotechnical Vocabulary (IEV) - Part 351: Control technology	-	-
IEC 60068-2-1	- <sup>1)</sup>	Environmental testing - Part 2-1: Tests - Test A: Cold	EN 60068-2-1	2007 <sup>2)</sup>
IEC 60068-2-2	- <sup>1)</sup>	Environmental testing - Part 2-2: Tests - Test B: Dry heat	EN 60068-2-2	2007 <sup>2)</sup>
IEC 60068-2-6	- <sup>1)</sup>	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	2008 <sup>2)</sup>
IEC 60068-2-30	- <sup>1)</sup>	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	EN 60068-2-30	2005 <sup>2)</sup>
IEC 60068-2-31	- <sup>1)</sup>	Environmental testing - Part 2-31: Tests - Test Ec: Rough handling shocks, primarily for equipment-type specimens	EN 60068-2-31	2008 <sup>2)</sup>
IEC 60654-1	1993	Industrial-process measurement and control equipment - Operating conditions - Part 1: Climatic conditions	EN 60654-1	1993
IEC 60654-2 + A1	1979 1992	Operating conditions for industrial-process measurement and control equipment - Part 2: Power	EN 60654-2	1997
IEC 60654-3	1983	Operating conditions for industrial-process measurement and control equipment - Part 3: Mechanical influences	EN 60654-3	1997

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

<sup>2)</sup> Valid edition at date of issue.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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	2002	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN 61000-4-3 <sup>3)</sup>	2002
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	1995	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	EN 61000-4-5 <sup>4)</sup>	1995
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 61298-1	2008	Process measurement and control devices - General methods and procedures for evaluating performance - Part 1: General considerations	EN 61298-1	2008
IEC 61298-2	2008	Process measurement and control devices - General methods and procedures for evaluating performance - Part 2: Tests under reference conditions	EN 61298-2	2008
IEC 61298-4	2008	Process measurement and control devices - General methods and procedures for evaluating performance - Part 4: Evaluation report content	EN 61298-4	2008
IEC 61326	Series	Electrical equipment for measurement, control and laboratory use - EMC requirements	EN 61326	Series
IEC 61326-1	2005	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	EN 61326-1	2006

<sup>3)</sup> EN 61000-4-3 is superseded by EN 61000-4-3:2006, which is based on IEC 61000-4-3:2006.

<sup>4)</sup> EN 61000-4-5 is superseded by EN 61000-4-5:2006, which is based on IEC 61000-4-5:2005.



IEC 61298-3

Edition 2.0 2008-10

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Process measurement and control devices – General methods and procedures  
for evaluating performance –  
Part 3: Tests for the effects of influence quantities**

**Dispositifs de mesure et de commande de processus – Méthodes et procédures  
générales d'évaluation des performances –  
Partie 3: Essais pour la détermination des effets des grandeurs d'influence**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

PRICE CODE  
CODE PRIX

U

ICS 25.040.40

ISBN 2-8318-1003-2

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**PROCESS MEASUREMENT AND CONTROL DEVICES –  
GENERAL METHODS AND PROCEDURES  
FOR EVALUATING PERFORMANCE –**

**Part 3: Tests for the effects of influence quantities**

## 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 61298-3 has been prepared by sub-committee 65B: Devices and process analysis, of IEC technical committee 65: Industrial-process measurement, control and automation.

This second edition cancels and replaces the first edition published in 1998. This second edition constitutes a technical revision.

This edition is a general revision with respect to the previous edition and does not include any significant changes (see Introduction).

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

FDIS	Report on voting
65B/687/FDIS	65B/695/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 parts of the IEC 61298 series, under the general title *Process measurement and control devices – General methods and procedures for evaluating performance*, 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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## INTRODUCTION

This standard is not intended as a substitute for existing standards, but is rather intended as a reference document for any future standard developed within the IEC, or other standards organizations, concerning the evaluation of process instrumentation. Any revision of existing standards should take this standard into account.

This common standardized basis should be utilized for the preparation of future relevant standards, as follows:

- any test method or procedure, already treated in this standard, should be specified and described in the new standard by referring to the corresponding clause of this standard. Consequently new editions of this standard are revised without any change in numbering and scope of each clause;
- any particular method or procedure, not covered by this standard, should be developed and specified in the new standard in accordance with the criteria, as far as they are applicable, stated in this standard;
- any conceptual or significant deviation from the content of this standard should be clearly identified and justified if introduced in a new standard.

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