

SLOVENSKI STANDARD

SIST EN 61003-1:2017

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Nadomešča:

SIST EN 61003-1:2004

Nadzorni sistemi za industrijske procese - Instrumenti z analognimi vhodi in dvo- ali večpozicijskimi izhodi - 1. del: Postopki za ocenjevanje zmogljivosti (IEC 61003-1:2016)

Industrial-Process control systems - Instruments with analogue inputs and two- or multi-position outputs - Part 1: Methods of evaluating the performance (IEC 61003-1:2016)

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Systeme der industriellen Prozessleittechnik - Geräte mit analogen Eingängen und Zwei- oder Mehrpunktverhalten - Teil 1: Verfahren zur Bewertung des Betriebsverhaltens (IEC 61003-1:2016)

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Système de commande de processus industriels - Instruments avec entrées analogiques et sorties à deux ou plusieurs positions - Partie 1: Méthodes d'évaluation des performances (IEC 61003-1:2016)

Ta slovenski standard je istoveten z: EN 61003-1:2016

ICS:

25.040.40	Merjenje in krmiljenje industrijskih postopkov	Industrial process measurement and control
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EUROPEAN STANDARD

EN 61003-1

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Industrial-process control systems - Instruments with analogue inputs and two- or multi-position outputs - Part 1: Methods for evaluating performance
(IEC 61003-1:2016)

Systèmes de commande de processus industriels - Instruments avec entrées analogiques et sorties à deux ou plusieurs positions - Partie 1: Méthodes d'évaluation des performances
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(IEC 61003-1:2016)

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

EN 61003-1:2016**European foreword**

The text of document 65B/1040/FDIS, future edition 3 of IEC 61003-1, prepared by SC 65B "Measurement and control devices", of IEC/TC 65 "Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61003-1:2016.

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) 2017-05-04
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-11-04

This document supersedes EN 61003-1:2004.

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The text of the International Standard IEC 61003-1:2016 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated :

IEC 61326-1:2012 NOTE Harmonized as EN 61326-1:2013 (not modified).

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050	series	International Electrotechnical Vocabulary (IEV)	-	-
IEC 60050-300	-	International Electrotechnical Vocabulary - 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	-	International Electrotechnical Vocabulary - Part 351: Control technology	-	-
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 61298-3	2008	Process measurement and control devices - General methods and procedures for evaluating performance - Part 3: Tests for the effects of influence quantities	EN 61298-3	2008
IEC 61298-4	-	Process measurement and control devices - General methods and procedures for evaluating performance - Part 4: Evaluation report content	EN 61298-4	-

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IEC 61003-1

Edition 3.0 2016-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Industrial-process control systems – Instruments with analogue inputs and two- or multi-position outputs –
Part 1: Methods for evaluating performance**

**Systèmes de commande de processus industriels – Instruments avec entrées analogiques et sorties à deux ou plusieurs positions –
Partie 1: Méthodes d'évaluation des performances**

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CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references.....	7
3 Terms and definitions	8
4 General conditions for tests	9
4.1 Documentary information.....	9
4.1.1 General reference documents.....	9
4.1.2 Collect data	10
4.2 Electrical safety	10
4.3 Installation	10
4.4 Supply conditions.....	10
5 General testing procedures and precautions.....	10
5.1 Checking of calibration made prior to delivery.....	10
5.2 Set point	10
5.3 Differential gap	11
6 Test methods and procedures.....	11
6.1 Tests under reference conditions.....	11
6.1.1 Switching accuracy related factors.....	11
6.1.2 Mean switching point.....	12
6.1.3 Set point.....	12
6.2 Tests for the effects of influence quantities.....	12
6.2.1 Ambient temperature.....	12
6.2.2 Humidity	13
6.2.3 Vibrations	13
6.2.4 Shock, drop and topple	14
6.2.5 Mounting position.....	14
6.2.6 Over-range	14
6.2.7 Output load effects.....	14
6.2.8 Supply voltage and frequency variations.....	14
6.2.9 Short-term supply voltage interruptions.....	14
6.2.10 Fast transient/burst immunity requirements.....	15
6.2.11 Supply pressure variations	15
6.2.12 Common mode interference.....	15
6.2.13 Normal mode interference (series mode)	15
6.2.14 Earthing.....	15
6.2.15 Magnetic field effects	15
6.2.16 Electromagnetic field.....	16
6.2.17 Electrostatic discharge (ESD).....	16
6.2.18 Effect of open-circuited and short-circuited input.....	16
6.2.19 Effect of open-circuited and short-circuited output.....	16
6.2.20 Effect of process medium temperature.....	16
6.2.21 Atmospheric pressure effects	17
6.2.22 Start-up drift	17
6.2.23 Accelerated operational life test	17
6.3 Other tests	17

6.3.1	Transient response of a two-position output.....	17
6.3.2	Indication of the measured value	18
6.3.3	Adjustable differential gap	18
6.3.4	Dielectric strength	18
6.3.5	Insulation resistance	19
7	Multi-position output	19
7.1	Action	19
7.2	Test.....	19
7.2.1	Characteristics of the multi-position output	19
7.2.2	Mutual influence of pairs of switching points	19
7.2.3	Determination of switching range.....	19
8	General observations.....	19
8.1	Protective finishes.....	19
8.2	Tools and equipment.....	19
9	Test report and summary of tests	20
10	Partial evaluation.....	23
	Bibliography	24
	Figure 1 – Action of two-position output.....	8
	Figure 2 – Action of three-position output	9
	Table 1 – An example of a report (1 of 4)	20

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**INDUSTRIAL-PROCESS CONTROL SYSTEMS – INSTRUMENTS WITH
ANALOGUE INPUTS AND TWO- OR MULTI-POSITION OUTPUTS –****Part 1: Methods for evaluating performance**

FOREWORD

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International Standard IEC 61003-1 has been prepared by subcommittee SC 65B: Measurement and control devices, of IEC technical committee TC 65: Industrial-process measurement, control and automation.

This third edition cancels and replaces the second edition published in 2004. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) use of the term “two-position output” instead of “two-state instrument” (see 3.2);
- b) use of the term “differential gap” instead of “switching differential” (see 3.4);
- c) use of “fast transient/burst immunity requirements” instead of “power supply transient overvoltages”, and revision of the test method (see 6.2.10);

- d) deletion of 6.2.12 “common mode interference” and 6.2.13 “normal mode interference (series mode)” tests of the previous edition;
- e) use of the term “electromagnetic field” instead of “radiated electromagnetic interference”, the test method remained the same (see 6.2.16);
- f) use of the term “dielectric strength” instead of “isolation test”, and revision of the reference (see 6.3.4);
- g) deletion of Subclauses “8.2 Design features”, “10.1 Routine maintenance and adjustment” and “10.2 Repair” of the previous edition.

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

FDIS	Report on voting
65B/1040/FDIS	65B/1050/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 61003 series, published under the general title *Industrial-process control systems – Instruments with analogue inputs and two or multi-position outputs*, can be found on the IEC website.

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The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under “<http://webstore.iec.ch>” in the data related to the specific publication. At this date, the publication will be

- reconfirmed, <https://standards.iteh.ai/catalog/standards/sist/5a0e75e5-11f3-465f-a6d1-c29353d0e248/sist-en-61003-1-2017>
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- replaced by a revised edition, or
- amended.

INTRODUCTION

The methods of evaluation specified in this part of IEC 61003 are intended for use by manufacturers to determine the performance of their products and by users, or independent testing establishments, to verify the manufacturer's performance specifications.

The test conditions in this standard, for example the range of ambient temperatures and power supply, represent those, which commonly arise in use.

The tests specified in this standard are not necessarily sufficient for instruments specifically designed for unusually arduous duties. Conversely, a restricted series of tests may be suitable for instruments designed to perform within a more limited range of conditions.

It will be appreciated that the closest communication should be maintained between the evaluating body and the manufacturer. Note should be taken of the manufacturer's specifications for the instrument, when the test program is being decided, and the manufacturer should be invited to comment on both the test program and the results. His comments on the results should be included in any report produced by the testing organization.

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