

# **SLOVENSKI STANDARD**

## **SIST EN 61069-2:1998**

**01-november-1998**

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### **Industrial-process measurement and control - Evaluation of system properties for the purpose of system assessment - Part 2: Assessment methodology (IEC 61069-2:1993)**

Industrial-process measurement and control - Evaluation of system properties for the purpose of system assessment -- Part 2: Assessment methodology

Leittechnik für industrielle Prozesse - Ermittlung der Systemeigenschaften zum Zweck der Eignungsbeurteilung eines Systems -- Teil 2: Methodik der Eignungsbeurteilung

Mesure et commande dans les processus industriels - Appréciation des propriétés d'un système en vue de son évaluation -- Partie 2: Methodologie à appliquer pour l'évaluation

**Ta slovenski standard je istoveten z: EN 61069-2:1994**

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#### **ICS:**

25.040.40	Merjenje in krmiljenje industrijskih postopkov	Industrial process measurement and control
35.240.50	Uporabniške rešitve IT v industriji	IT applications in industry

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**en**

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ICS 35.240.50

Descriptors: Industrial process, measurement and control, system  
assessment, evaluation of system properties, assessment  
methodology

## ENGLISH VERSION

Industrial-process measurement and control  
Evaluation of system properties for the purpose  
of system assessment  
Part 2: Assessment methodology  
(IEC 1069-2:1993)

Mesure et commande dans les  
processus industriels  
Appréciation des propriétés d'un  
système en vue de son évaluation  
Partie 2: Méthodologie à  
appliquer pour l'évaluation

(CEI 1069-2:1993)

Leittechnik für industrielle  
Prozesse - Ermittlung der  
Systemeigenschaften zum Zweck  
der Eignungsbeurteilung eines  
Systems  
Teil 2: Methodik der  
Eignungsbeurteilung  
(IEC 1069-2:1993)

This European Standard was approved by CENELEC on 1994-03-08.  
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,  
Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg,  
Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and 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 CENELEC questionnaire procedure, performed for finding out whether or not the International Standard IEC 1069-2:1993 could be accepted without textual changes, has shown that no common modifications were necessary for the acceptance as European Standard.

The reference document was submitted to the CENELEC members for formal vote and was approved by CENELEC as EN 61069-2 on 8 March 1994.

The following dates were fixed:

- latest date of publication of an identical national standard (dop) 1995-03-15
- latest date of withdrawal of conflicting national standards (dow) 1995-03-15

Annexes designated "normative" are part of the body of the standard. Annexes designated "informative" are given only for information. In this standard, annex A is informative and annex ZA is normative.

## ENDORSEMENT NOTICE

The text of the International Standard IEC 1069-2:1993 was approved by CENELEC as a European Standard without any modification.

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ANNEX ZA (normative)

OTHER INTERNATIONAL PUBLICATIONS QUOTED IN THIS STANDARD  
WITH THE REFERENCES OF THE RELEVANT EUROPEAN PUBLICATIONS

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

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

IEC Publication	Date	Title	EN/HD	Date
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1069-1	1991	Industrial-process measurement and control - Evaluation of system properties for the purpose of system assessment - Part 1: General considerations and methodology	EN 61069-1	1993

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**NORME  
INTERNATIONALE  
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IEC**

**61069-2**

Première édition  
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1993-03

**Mesure et commande dans les processus  
industriels –  
Appréciation des propriétés d'un système  
en vue de son évaluation –**

**Partie 2:**  
**Méthodologie à appliquer pour l'évaluation**  
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**Industrial-process measurement and control –  
Evaluation of system properties for  
the purpose of system assessment –**

**Part 2:**  
**Assessment methodology**

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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For price, see current catalogue

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

# INDUSTRIAL-PROCESS MEASUREMENT AND CONTROL – EVALUATION OF SYSTEM PROPERTIES FOR THE PURPOSE OF SYSTEM ASSESSMENT

## Part 2: Assessment methodology

### FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 3) They have the form of recommendations for international use published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.

This part of International Standard IEC 1069 has been prepared by sub-committee 65A: System aspects, of IEC technical committee 65: Industrial-process measurement and control.

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

DIS	Report on Voting
65A(CO)30	65A(CO)35

Full information on the voting for the approval of this part can be found in the voting report indicated in the above table.

The complete standard will consist of a series of publications, of which this is the second part.

Part 1 provides the overall guidance and as such it is intended as a "stand-alone" publication.

Part 2 details the assessment methodology.

Parts 3 to 8 provide guidance on the assessment of specific groups of properties.

The division of properties in Parts 3 to 8 has been chosen so as to group together related properties.

The complete series will consist of the following titles:

- Part 1: General considerations and methodology.
- Part 2: Assessment methodology.
- Part 3: Assessment of system functionality (*under consideration*).
- Part 4: Assessment of system performance (*under consideration*).
- Part 5: Assessment of system dependability (*under consideration*).
- Part 6: Assessment of system operability (*under consideration*).
- Part 7: Assessment of system safety (*under consideration*).
- Part 8: Assessment of non-task-related system properties (*under consideration*).

Annex A is for information only.

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## INTRODUCTION

This part of IEC 1069 details the methodology needed to systematically assess industrial-process measurement and control systems.

Assessment of a system is the judgement, based on evidence, of the system's suitability for a specific mission or class of missions.

To obtain total evidence would require complete (i.e. under all influencing conditions) evaluation of all system properties relevant to the specific mission or class of missions.

Since this is rarely practical, the rationale for an assessment of a system is:

- to identify the criticality of each of the relevant system properties;
- to plan for evaluation of the relevant system properties with a cost-effective dedication of effort to the various properties.

In conducting an assessment of a system it is crucial to bear in mind the need to gain a maximum increase in confidence in the suitability of a system within practical cost and time constraints.

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An assessment can only be carried out if a mission has been stated (or given) or if any mission can be hypothesized. In the absence of a mission, no assessment can be made, however evaluations can still be defined and carried out for use in assessments performed by others.

In such cases, the standard can be used as a guide for planning an evaluation and it provides procedures for performing evaluations, since evaluations are an integral part of assessment.

The relation of this part to the other parts of IEC 1069 and the relative place of this part within the standard is shown in figure 1.