EESTI STANDARD EVS-EN 61069-1:2002

Industrial-process measurement and control - Evaluation of system properties for the purpose of system assessment - Part 1: General considerations and methodology

EESTI STANDARDIKESKUS

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 61069-1:2002 sisaldab Euroopa standardi EN 61069-1:1993 ingliskeelset teksti.	This Estonian standard EVS-EN 61069-1:2002 consists of the English text of the European standard EN 61069-1:1993.
Standard on kinnitatud Eesti Standardikeskuse 18.12.2002 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 18.12.2002 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

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English version

Industrial-process measurement and control Evaluation of system properties for the purpose of system assessment Part 1: General considerations and methodology

(IEC 1069-1 : 1991)

Mesure et commande dans les processus industriels
Appréciation des propriétés d'un système en vue de son évaluation
Partie 1: Considérations générales et méthodologie
(CEI 1069-1 : 1991)

Messen, Steuern, Regeln
Ermittlung der Systemeigenschaften zum Zweck der Eignungsbeurteilung eines Systems
Teil 1: Allgemeine Überlegungen und Methodik
(IEC 1069-1 : 1991)

This European Standard was approved by CENELEC on 1993-03-09. 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

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Foreword

The CENELEC questionnaire procedure, performed for finding out whether or not the International Standard IEC 1069-1 : 1991 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 61069-1 on 9 March 1993.

The following dates were fixed:

- latest date of publication of an identical national standard (dop) 1994-03-01
- latest date of withdrawal of conflicting national standards (dow) 1994-03-01

Annexes designated 'normative' are part of the body of the standard. In this standard, annex ZA is normative.

CONTENTS

INTRODUCTION

This part of IEC 1069 provides methods and procedures for the assessment of industrial-process measurement and control systems.

Assessment of a system is judgement, based on evidence, of a 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 of relevance 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 the relevant system properties;

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

In conducting the 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.

This part of IEC 1069, together with existing International Standards dealing with the evaluation of system-elements as individual entities, provides methods and procedures for the assessment of a system as a whole.

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

Part 1: General considerations and methodology

1 Scope

This part of IEC 1069 outlines the general considerations in the assessment of industrial-process measurement and control systems, hereafter referred to as "system(s)".

This part, together with subsequent parts, is intended for the users and manufacturers of systems, and also for those who are responsible for carrying out assessments as an independent party.

2 Definitions

2.1 Unless otherwise stated, the definitions in the following documents apply:

IEC 50(351): 1975, *International Electrotechnical Vocabulary (IEV) - Chapter 351: Automatic control.*

IEC 271: 1974, *List of basic terms, definitions and related mathematics for reliability.*

IEC 271A: 1978, *List of basic terms, definitions and related mathematics for reliability. First supplement.*

IEC 271B: 1983, *List of basic terms, definitions and related mathematics for reliability. Second supplement.*

IEC 271C: 1985, *List of basic terms, definitions and related mathematics for reliability. Third supplement.*

2.2 For the purpose of this part of IEC 1069 the following definitions apply.

2.2.1 **assessment (of a system):** Judgement, based on evidence, of the system's suitability for a specific mission or class of missions.

2.2.2 **evaluation (of a system property):** Attribution of a qualitative or quantitative value to that system property.

2.2.3 **mission (of a system):** Collective activity assigned to the system to achieve a defined goal in a defined period under defined conditions.

2.2.4 **task:** Logically complete operation forming a part of the system mission.