

STN	Meranie, riadenie a automatizácia priemyselných procesov. Hodnotenie vlastností systému s cieľom posúdiť systém. Časť 7: Posudzovanie bezpečnosti systému.	STN EN 61069-7 18 0451
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Industrial-process measurement, control and automation - Evaluation of system properties for the purpose of system assessment - Part 7: Assessment of system safety

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 02/17

Obsahuje: EN 61069-7:2016, IEC 61069-7:2016

Oznámením tejto normy sa od 20.07.2019 ruší
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EUROPEAN STANDARD

EN 61069-7

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2016

ICS 25.040.40

Supersedes EN 61069-7:1999

English Version

**Industrial-process measurement, control and automation -
Evaluation of system properties for the purpose of system
assessment - Part 7: Assessment of system safety
(IEC 61069-7:2016)**

Mesure, commande et automation dans les processus
industriels - Appréciation des propriétés d'un système en vue
de son évaluation - Partie 7: Evaluation de la sécurité d'un
système
(IEC 61069-7:2016)

Leittechnik für industrielle Prozesse - Ermittlung der
Systemeigenschaften zum Zweck der Eignungsbeurteilung
eines Systems - Teil 7: Eignungsbeurteilung der Sicherheit
eines Systems
(IEC 61069-7:2016)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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

European foreword

The text of document 65A/795/FDIS, future edition 2 of IEC 61069-7, 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 approved by CENELEC as EN 61069-7:2016.

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) 2017-04-20
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-07-20

This document supersedes EN 61069-7:1999.

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60243	NOTE	Harmonized in EN 60243 series.
IEC 60529	NOTE	Harmonized as EN 60529.
IEC 60695-2	NOTE	Harmonized in EN 60695-2 series.
IEC 60664-1	NOTE	Harmonized as EN 60664-1.
IEC 60695-11-10	NOTE	Harmonized as EN 60695-11-10.
IEC 60695-11-20	NOTE	Harmonized as EN 60695-11-20.
IEC 60825-1	NOTE	Harmonized as EN 60825-1.
IEC 61010-1:2010	NOTE	Harmonized as EN 61010-1:2010 (not modified).
IEC 61069-3	NOTE	Harmonized as EN 61069-3.
IEC 61069-4	NOTE	Harmonized as EN 61069-4.
IEC 61069-5:2016	NOTE	Harmonized as EN 61069-5:2016 (not modified).

IEC 61069-6:2016	NOTE	Harmonized as EN 61069-6:2016 (not modified).
IEC 61069-8	NOTE	Harmonized as EN 61069-8.
IEC 61508	NOTE	Harmonized in EN 61508 series.
IEC/TS 62603-1	NOTE	Harmonized as CLC/TS 62603-1.
CISPR 22	NOTE	Harmonized as EN 55022.
ISO 31010:2009	NOTE	Harmonized as EN 31010:2010 (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 61069-1	2016	Industrial-process measurement, control and automation - Evaluation of system properties for the purpose of system assessment - Part 1: Terminology and basic concepts	EN 61069-1	201X ¹⁾
IEC 61069-2	2016	Industrial-process measurement, control and automation - Evaluation of system properties for the purpose of system assessment - Part 2: Assessment methodology	EN 61069-2	201X ¹⁾

1) To be published.

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Industrial-process measurement, control and automation – Evaluation of system properties for the purpose of system assessment –
Part 7: Assessment of system safety**

**Mesure, commande et automation dans les processus industriels – Appréciation des propriétés d'un système en vue de son évaluation –
Partie 7: Évaluation de la sécurité d'un système**





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IEC 61069-7

Edition 2.0 2016-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Industrial-process measurement, control and automation – Evaluation of system properties for the purpose of system assessment –
Part 7: Assessment of system safety**

**Mesure, commande et automation dans les processus industriels – Appréciation des propriétés d'un système en vue de son évaluation –
Partie 7: Évaluation de la sécurité d'un système**

INTERNATIONAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**INDUSTRIAL-PROCESS MEASUREMENT, CONTROL AND AUTOMATION –
EVALUATION OF SYSTEM PROPERTIES FOR
THE PURPOSE OF SYSTEM ASSESSMENT –****Part 7: Assessment of system safety**

FOREWORD

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International Standard IEC 61069-7 has been prepared by subcommittee 65A: System aspects, of IEC technical committee 65: Industrial-process measurement, control and automation.

This second edition cancels and replaces the first edition published in 1999. This edition constitutes a technical revision.

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

- a) reorganization of the material of IEC 61069-7:1999 to make the overall set of standards more organized and consistent;
- b) IEC TS 62603-1 has been incorporated into this edition.

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

FDIS	Report on voting
65A/795/FDIS	65A/805/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 in the IEC 61069 series, published under the general title *Industrial-process measurement, control and automation – Evaluation of system properties for the purpose of system assessment*, can be found on the IEC website.

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,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

IEC 61069 deals with the method which should be used to assess system properties of a basic control system (BCS). IEC 61069 consists of the following parts.

- Part 1: Terminology and basic concepts
- Part 2: Assessment methodology
- Part 3: Assessment of system functionality
- Part 4: Assessment of system performance
- Part 5: Assessment of system dependability
- Part 6: Assessment of system operability
- Part 7: Assessment of system safety
- Part 8: Assessment of other system properties

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

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

Since this is rarely practical, the rationale on which an assessment of a system should be based is:

- the identification of the importance of each of the relevant system properties,
- the planning for evaluation of the relevant system properties with a cost-effective dedication of effort to the various system 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.

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 specified and carried out for use in assessments performed by others. In such cases, IEC 61069 can be used as a guide for planning an evaluation and it provides methods for performing evaluations, since evaluations are an integral part of assessment.

In preparing the assessment, it can be discovered that the definition of the system is too narrow. For example, a facility with two or more revisions of the control systems sharing resources, for example a network, should consider issues of co-existence and inter-operability. In this case, the system to be investigated should not be limited to the “new” BCS; it should include both. That is, it should change the boundaries of the system to include enough of the other system to address these concerns.

The series structure and the relationship among the parts of IEC 61069 are shown in Figure 1.

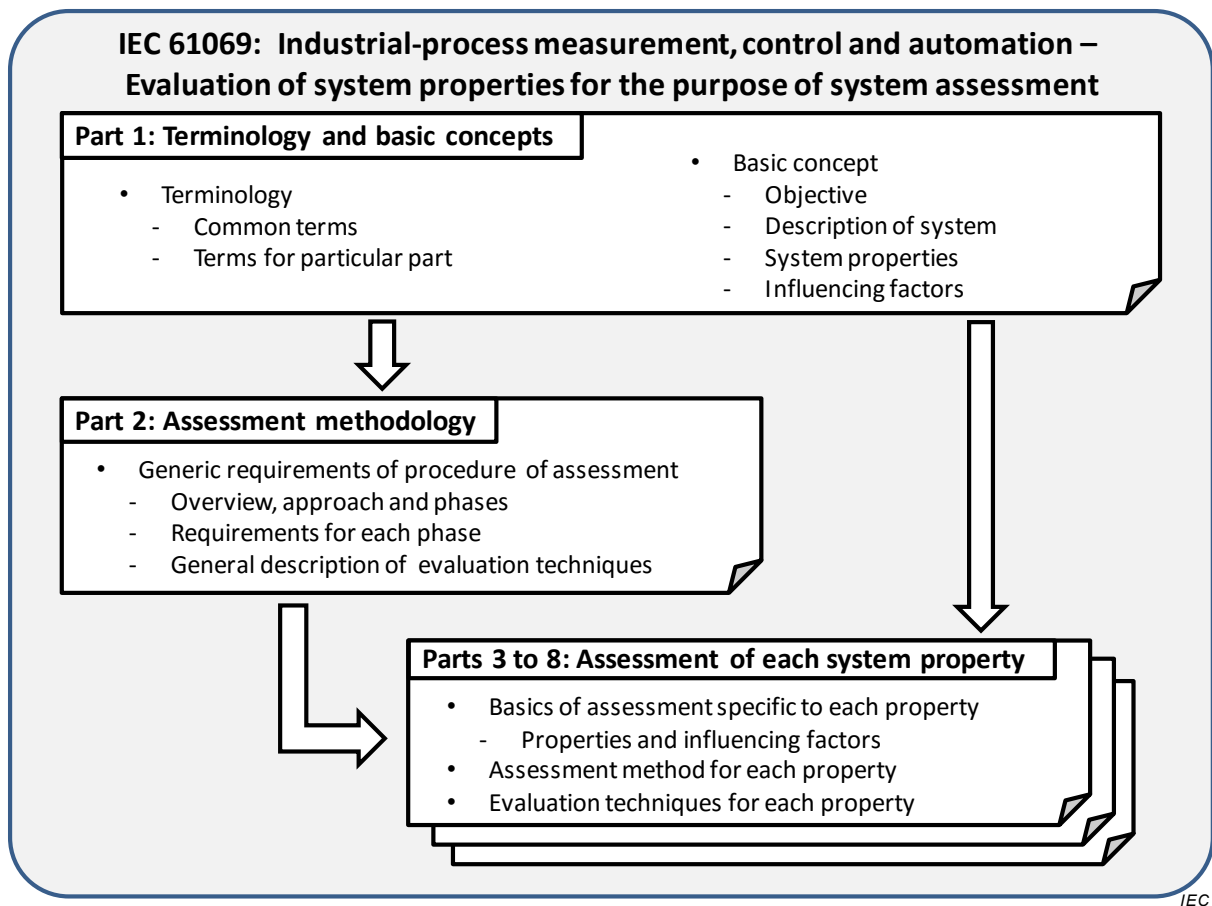


Figure 1 – General layout of IEC 61069

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

Part 7: Assessment of system safety

1 Scope

This part of IEC 61069:

- specifies the detailed method of the assessment of system safety of a basic control system (BCS) based on the basic concepts of IEC 61069-1 and methodology of IEC 61069-2,
- defines basic categorization of system safety properties,
- describes the factors that influence system safety and which need to be taken into account when evaluating system safety, and
- provides guidance in selecting techniques from a set of options (with references) for evaluating the system safety.

The treatment of safety in this standard is confined to hazards that can be present within the BCS itself. That is, the BCS itself as a physical entity will not impose a hazard.

Considerations of hazards that can be introduced by the process or equipment under control, of the BCS to be assessed, are excluded.

2 Normative references

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.

IEC 61069-1:2016, *Industrial-process measurement, control and automation – Evaluation of system properties for the purpose of system assessment – Part 1: Terminology and basic concepts*

IEC 61069-2:2016, *Industrial-process measurement, control and automation – Evaluation of system properties for the purpose of system assessment – Part 2: Assessment methodology*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN