



SLOVENSKI STANDARD

SIST-TS CLC/TS 62603-1:2015

01-september-2015

Sistemi za upravljanje industrijskih procesov - Vodila za ocenjevanje sistemov za upravljanje procesa - 1. del: Specifikacije (IEC/TS 62603-1:2014)

Industrial process control systems - Guidelines for evaluating process control systems - Part 1: Specifications (IEC/TS 62603-1:2014)

Industrielle Prozessleitsysteme - Richtlinie für die Beurteilung der Leistung von Prozessleitsystemen - Teil 1: Festlegungen (IEC/TS 62603-1:2014)

Systèmes de commande des processus industriels - Lignes directrices pour l'évaluation des systèmes de commande de processus - Partie 1: Spécifications (CEI/TS 62603-1:2014)

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TECHNICAL SPECIFICATION
SPÉCIFICATION TECHNIQUE
TECHNISCHE SPEZIFIKATION

CLC/TS 62603-1

September 2014

ICS 25.040.40

English Version

**Industrial process control systems - Guideline for evaluating
process control systems - Part 1: Specifications
(IEC/TS 62603-1:2014)**

Systèmes de commande des processus industriels - Lignes
directrices pour l'évaluation des systèmes de commande de
processus - Partie 1: Spécifications
(CEI/TS 62603-1:2014)

Industrielle Prozessleitsysteme - Richtlinie für die
Beurteilung der Leistung von Prozessleitsystemen - Teil 1:
Festlegungen
(IEC/TS 62603-1:2014)

This Technical Specification was approved by CENELEC on 2013-06-26.

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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

Foreword

The text of document 65B/875/DTS, future edition 1 of IEC/TS 62603-1, 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 CLC/TS 62603-1:2014.

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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 60038 (mod)	2009	IEC standard voltages	EN 60038	2011
IEC 60050	series	International Electrotechnical Vocabulary	-	series
IEC 60079-10	-	Electrical apparatus for explosive gas atmospheres -- Part 10: Classification of hazardous areas	EN 60079-10	-
IEC 60079-10-1	-	Explosive atmospheres -- Part 10-1: Classification of areas - Explosive gas atmospheres	EN 60079-10-1	-
IEC 60079-10-2	-	Explosive atmospheres -- Part 10-2: Classification of areas - Combustible dust atmospheres	EN 60079-10-2	-
IEC 60079-11	-	Electrical apparatus for explosive gas atmospheres -- Part 11: Intrinsic safety "i"	EN 60079-11	-
IEC 60079-14	-	Explosive atmospheres -- Part 14: Electrical installations design, selection and erection	EN 60079-14	-
IEC 60300-3-4	-	Dependability management -- Part 3-4: Application guide - Guide to the specification of dependability requirements	EN 60300-3-4	-
IEC 60654-1	-	Industrial-process measurement and control equipment - Operating conditions -- Part 1: Climatic conditions	EN 60654-1	-
IEC 60654-2	-	Operating conditions for industrial-process measurement and control equipment -- Part 2: Power	EN 60654-2	-
IEC 60654-3	-	Operating conditions for industrial-process measurement and control equipment -- Part 3: Mechanical influences	EN 60654-3	-
IEC 60654-4	-	Operating conditions for industrial-process measurement and control equipment -- Part 4: Corrosive and erosive influences	EN 60654-4	-
IEC 60721-3-1	-	Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities -- Section 1: Storage	EN 60721-3-1	-
IEC 60721-3-2	-	Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities -- Section 2: Transportation	EN 60721-3-2	-
IEC 60721-3-3	-	Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities -- Section 3: Stationary use at weatherprotected locations	EN 60721-3-3	-

IEC 60721-3-4	-	Classification of environmental conditions - EN 60721-3-4 - Part 3: Classification of groups of environmental parameters and their severities -- Section 4: Stationary use at non-weatherprotected locations	-
IEC 60848	-	GRAFCET specification language for sequential function charts	EN 60848 -
IEC 60870-4	-	Telecontrol equipment and systems -- Part HD 546.4 S1 4: Performance requirements	-
IEC 61000-4-2	-	Electromagnetic compatibility (EMC) -- Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	EN 61000-4-2 -
IEC 61000-4-3	-	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN 61000-4-3 -
IEC 61000-4-4	-	Electromagnetic compatibility (EMC) -- Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	EN 61000-4-4 -
IEC 61000-4-5	-	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	FprEN 61000-4-5 -
IEC 61000-4-6	-	Electromagnetic compatibility (EMC) -- Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	EN 61000-4-6 -
IEC 61000-4-8	-	Electromagnetic compatibility (EMC) -- Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test	EN 61000-4-8 -
IEC 61000-4-9	-	Electromagnetic compatibility (EMC) -- Part 4-9: Testing and measurement techniques - Pulse magnetic field immunity test	EN 61000-4-9 -
IEC 61000-4-10	-	Electromagnetic compatibility (EMC) -- Part 4-10: Testing and measurement techniques - Damped oscillatory magnetic field immunity test	EN 61000-4-10 -
IEC 61000-4-11	-	Electromagnetic compatibility (EMC) -- Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	EN 61000-4-11 -
IEC 61000-6-4	-	Electromagnetic compatibility (EMC) -- Part 6-4: Generic standards - Emission standard for industrial environments	EN 61000-6-4 -
IEC 61025	-	Fault Tree Analysis (FTA)	EN 61025 -
IEC 61069-1	-	Industrial-process measurement and control - Evaluation of system properties for the purpose of system assessment -- Part 1: General considerations and methodology	EN 61069-1 -
			+EN 61069-1:1993/corrigendum Nov. 1993 1993

IEC 61069-4	-	Industrial process measurement and control - Evaluation of system properties for the purpose of system assessment -- Part 4: Assessment of system performance	EN 61069-4	-
IEC 61069-5	-	Industrial-process measurement and control - Evaluation of system properties for the purpose of system assessment -- Part 5: Assessment of system dependability	EN 61069-5	-
IEC 61069-6	-	Industrial-process measurement and control - Evaluation of system properties for the purpose of system assessment -- Part 6: Assessment of system operability	EN 61069-6	-
IEC 61069-7	-	Industrial-process measurement and control - Evaluation of system properties for the purpose of system assessment -- Part 7: Assessment of system safety	EN 61069-7	-
IEC 61069-8	-	Industrial-process measurement and control - Evaluation of system properties for the purpose of system assessment -- Part 8: Assessment of non-task-related system properties	EN 61069-8	-
IEC 61078	-	Analysis techniques for dependability - Reliability block diagram and Boolean methods	EN 61078	-
IEC 61131-2	-	Programmable controllers -- Part 2: Equipment requirements and tests	EN 61131-2	-
IEC 61131-3	-	Programmable controllers -- Part 3: Programming languages	EN 61131-3	-
IEC 61140	-	Protection against electric shock - Common aspects for installation and equipment	EN 61140	-
IEC 61158	series	Industrial communication networks - Fieldbus specifications	PrEN 61158	series
IEC 61326-1	-	Electrical equipment for measurement, control and laboratory use - EMC requirements -- Part 1: General requirements	EN 61326-1	-
IEC 61508	series	Functional safety of electrical/electronic/programmable electronic safety-related systems	EN 61508	series
IEC 61511	series	Batch control	EN 61511	series
IEC 61512	series		EN 61512	series
IEC 61784	series		EN 61784	series
IEC 62305-1 (mod)	-	Protection against lightning -- Part 1: General principles	EN 62305-1	-
IEC 62347	-	Guidance on system dependability specifications	+AA EN 62347	201X -
IEC 62381	-	Automation systems in the process industry - Factory acceptance test (FAT), site acceptance test (SAT) and site integration test (SIT)	EN 62381	-
IEC 62443-2-1	-	Industrial communication networks - Network and system security -- Part 2-1: Establishing an industrial automation and control system security program	-	-

IEC 62443-3-3	-	Industrial communication networks - Network and system security - Part 3-3: System security requirements and security levels	-	-
IEC/TR 62380	-	Reliability data handbook - Universal model for reliability prediction of electronics components, PCBs and equipment	-	-
ISO/IEC 14764	2006	Software Engineering - Software Life Cycle- Processes - Maintenance	-	-
IEEE 802.11	-	IEEE Standard for Information technology- Telecommunications and information exchange between systems-Local and metropolitan area networks-Specific requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications annunciator sequences and specifications	-	-
ISA 18.1- 1979(R1992)	-		-	-
ISA 18.2-2009	-	Management of alarm systems for the process industries	-	-
ISA 37.1-1975 (R1982)	-	Electrical Transducer Nomenclature & Terminology	-	-
ISA S88	-	Batch control	-	-

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TECHNICAL SPECIFICATION



**Industrial process control systems – Guideline for evaluating process control systems –
Part 1: Specifications**

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INDUSTRIAL PROCESS CONTROL SYSTEMS – GUIDELINE FOR EVALUATING PROCESS CONTROL SYSTEMS –

Part 1: Specifications

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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- the required support cannot be obtained for the publication of an International Standard, despite repeated efforts, or
- the subject is still under technical development or where, for any other reason, there is the future but no immediate possibility of an agreement on an International Standard.

Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC TS 62603-1, which is a technical specification, has been prepared by subcommittee 65B: Measurement and control devices, of IEC technical committee 65: Industrial-process measurement, control and automation.

The text of this technical specification is based on the following documents:

Enquiry draft	Report on voting
65B/875/DTS	65B/905/RVC

Full information on the voting for the approval of this technical specification 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 62603 series, published under the general title *Industrial process control systems – Guideline for evaluating process control systems*, 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 web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- transformed into an International standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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