



SLOVENSKI STANDARD SIST EN IEC 62988:2022

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Jedrske elektrarne - Merilna in nadzorna oprema za zagotavljanje varnosti - Izbira in uporaba brezžičnih naprav (IEC 62988:2018)

Nuclear power plants - Instrumentation and control systems important to safety - Selection and use of wireless devices (IEC 62988:2018)

Kernkraftwerke - Leittechnische Systeme mit sicherheitstechnischer Bedeutung - Auswahl und Einsatz drahtloser Geräte (IEC 62988:2018)

Centrales nucléaires de puissance - Systèmes d'instrumentation et de contrôle-commande importants pour la sûreté - Sélection et utilisation des appareils sans fil (IEC 62988:2018)

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ICS:

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EUROPEAN STANDARD

EN IEC 62988

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

**Nuclear power plants - Instrumentation and control systems
important to safety - Selection and use of wireless devices
(IEC 62988:2018)**

Centrales nucléaires de puissance - Systèmes
d'instrumentation et de contrôle-commande importants pour
la sûreté - Sélection et utilisation des appareils sans fil
(IEC 62988:2018)

Kernkraftwerke - Leittechnische Systeme mit
sicherheitstechnischer Bedeutung - Auswahl und Einsatz
drahtloser Geräte
(IEC 62988:2018)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 62988:2022 (E)**European foreword**

This document (EN IEC 62988:2022) consists of the text of document IEC 62988:2018, prepared by IEC/TC 45 "Instrumentation, control and electrical power systems of nuclear facilities"

The following dates are fixed:

- latest date by which this document has to be (dop) 2023-08-08 implemented at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards (dow) 2025-08-08 conflicting with this document have to be withdrawn

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN-CENELEC shall not be held responsible for identifying any or all such patent rights.

As stated in the nuclear safety directive 2009/71/EURATOM, Chapter 1, Article 2, item 2, Member States are not prevented from taking more stringent safety measures in the subject-matter covered by the Directive, in compliance with Community law.

In a similar manner, this European standard does not prevent Member States from taking more stringent nuclear safety and/or security measures in the subject-matter covered by this standard.

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SIST EN IEC 62988:2022

<https://standards.iteh.ai/c/en/standards/sist-6c1b592-5771-4ddc-a143-fa9e8195a918/sist-en-iec-62988-2022>

Endorsement notice

The text of the International Standard IEC 62988:2018 was approved by CENELEC as a European Standard without any modification.

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

| | | |
|------------------|------|----------------------------------------------|
| IEC 61000-4-3 | NOTE | Harmonized as EN IEC 61000-4-3 |
| IEC 61226 | NOTE | Harmonized as EN IEC 61226 |
| IEC 62003 | NOTE | Harmonized as EN IEC 62003 |
| IEC 62657-1:2017 | NOTE | Harmonized as EN 62657-1:2017 (not modified) |
| IEC 62657-2:2017 | NOTE | Harmonized as EN 62657-2:2017 (not modified) |

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. 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 60987 | 2007 | Nuclear power plants - Instrumentation and control important to safety - Hardware design requirements for computer-based systems | EN 60987 | 2015 |
| IEC 61513 | 2011 | Nuclear power plants - Instrumentation and control important to safety - General requirements for systems | EN 61513 | 2013 |
| IEC 62138 | - | Nuclear power plants - Instrumentation and control systems important to safety - Software aspects for computer-based systems performing category B or C functions | EN IEC 62138 | - |
| IEC 62645 | - | Nuclear power plants - Instrumentation, control and electrical power systems - Cybersecurity requirements | EN IEC 62645 | - |
| IEC 62671 | - | Nuclear power plants - Instrumentation and control important to safety - Selection and use of industrial digital devices of limited functionality | - | - |
| IEC/IEEE 60780-323 | - | Nuclear facilities - Electrical equipment important to safety - Qualification | EN 60780-323 | - |



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NORME INTERNATIONALE

Nuclear power plants – Instrumentation and control systems important to safety – Selection and use of wireless devices

Centrales nucléaires de puissance – Systèmes d'instrumentation et de contrôle-commande importants pour la sûreté – Sélection et utilisation des appareils sans fil

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CONTENTS

| | |
|--------------------------------------------------------------------------|----|
| FOREWORD..... | 3 |
| INTRODUCTION..... | 5 |
| 1 Scope..... | 7 |
| 2 Normative references | 7 |
| 3 Terms and definitions | 8 |
| 4 Symbols and abbreviations..... | 11 |
| 5 Fundamental requirements | 11 |
| 5.1 Safety classification | 11 |
| 5.2 Physical separation and isolation | 11 |
| 5.3 Cybersecurity..... | 12 |
| 6 Wireless application: system requirements | 12 |
| 6.1 General..... | 12 |
| 6.2 Network architecture | 12 |
| 6.3 Network performance..... | 12 |
| 6.4 Network surveillance and monitoring..... | 12 |
| 6.5 Power supply requirements..... | 13 |
| 6.6 Physical security..... | 13 |
| 6.7 Electromagnetic security..... | 13 |
| 7 Device selection: evidence of correctness and device integration | 13 |
| 7.1 General..... | 13 |
| 7.2 Quality assurance | 13 |
| 7.3 Functional and performance suitability | 14 |
| 7.4 Integration into the application | 14 |
| 7.5 Device self-monitoring | 14 |
| 7.6 Solution preferences | 14 |
| 8 Radio emissions | 14 |
| 8.1 Electromagnetic compatibility..... | 14 |
| 8.2 Radio coverage requirements | 15 |
| 8.3 Spectrum management | 15 |
| 8.3.1 General | 15 |
| 8.3.2 Flexibility | 15 |
| 8.3.3 Mobility..... | 16 |
| 9 Cybersecurity | 16 |
| 9.1 General requirements | 16 |
| 9.2 Wireless-specific requirements | 16 |
| 9.2.1 Data logging | 16 |
| 9.2.2 Site topology | 16 |
| 9.2.3 Connection to a wired network..... | 16 |
| 9.2.4 Network surveillance | 16 |
| 10 Qualification | 17 |
| 10.1 Hardware qualification | 17 |
| 10.2 Software qualification..... | 17 |
| 11 Documentation | 17 |
| Bibliography..... | 18 |

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**NUCLEAR POWER PLANTS – INSTRUMENTATION AND CONTROL
SYSTEMS IMPORTANT TO SAFETY – SELECTION
AND USE OF WIRELESS DEVICES**

FOREWORD

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International Standard IEC 62988 has been prepared by subcommittee 45A: Instrumentation, control and electrical power systems of nuclear facilities, of IEC technical committee 45: Nuclear instrumentation.

The text of this International Standard is based on the following documents:

| | |
|---------------|------------------|
| FDIS | Report on voting |
| 45A/1187/FDIS | 45A/1198/RVD |

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

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

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

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

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN IEC 62988:2022](https://standards.iteh.ai/catalog/standards/sist/26c1b592-5771-4ddc-a143-fa9e8193a9f8/sist-en-iec-62988-2022)

<https://standards.iteh.ai/catalog/standards/sist/26c1b592-5771-4ddc-a143-fa9e8193a9f8/sist-en-iec-62988-2022>

INTRODUCTION

a) Technical background, main issues and organization of this document

This document sets out requirements applicable to wireless devices that are used to perform functions important to safety in nuclear power plants (NPPs).

It is intended that this document be used by operators of NPPs (utilities), systems evaluators and by licensors.

b) Situation of this document in the structure of the IEC SC 45A standard series

IEC 62988 is a third level IEC SC 45A document covering the selection and use of wireless devices in instrumentation and control (I&C) systems important to safety used in NPPs.

For more details on the structure of the IEC SC 45A standard series, see item d) of this introduction.

c) Recommendations and limitations regarding the application of this document

It is important to note that this document is applicable to all important to safety systems containing wireless devices, including systems performing category A and B functions (and in such systems, wireless devices are prohibited by this document). Therefore, only systems performing category C functions are required to follow the requirements of this document.

To ensure that this document will continue to be relevant in future years, the emphasis has been placed on issues of principle, rather than specific technologies.

d) Description of the structure of the IEC SC 45A standard series and relationships with other IEC documents and other bodies' documents (IAEA, ISO)

The top-level documents of the IEC SC 45A standard series are IEC 61513 and IEC 63046. IEC 61513 provides general requirements for I&C systems and equipment that are used to perform functions important to safety in NPPs. IEC 63046 provides general requirements for electrical power systems of NPPs; it covers power supply systems including the supply systems of the I&C systems. IEC 61513 and IEC 63046 are to be considered in conjunction and at the same level. IEC 61513 and IEC 63046 structure the IEC SC 45A standard series and shape a complete, coherent et consistent framework establishing general requirements for instrumentation, control and electrical systems for nuclear power plants.

IEC 61513 and IEC 63046 refer directly to other IEC SC 45A standards for general topics related to categorization of functions and classification of systems, qualification, separation, defence against common cause failure, control room design, electromagnetic compatibility, cybersecurity, software and hardware aspects for programmable digital systems, coordination of safety and security requirements and management of ageing. The standards referenced directly at this second level should be considered together with IEC 61513 and IEC 63046 as a consistent document set.

At a third level, IEC SC 45A standards not directly referenced by IEC 61513 or by IEC 63046 are standards related to specific equipment, technical methods, or specific activities. Usually these documents, which make reference to second-level documents for general topics, can be used on their own.

A fourth level extending the IEC SC 45 standard series, corresponds to the Technical Reports, which are not normative.