

© Copyright SEK Svensk Elstandard. Reproduction in any form without permission is prohibited.

## Industriella system, installationer och utrustning samt industriprodukter – Klassificering och beteckning av information – Del 1: Grundläggande regler och klassificering av information

*Industrial systems, installations and equipment and industrial products –  
Classification and designation of information –  
Part 1: Basic rules and classification of information*

Som svensk standard gäller europastandarden EN IEC 81355-1:2025. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 81355-1:2025.

### Nationellt förord

Europastandarden EN IEC 81355-1:2025

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 81355-1, First edition, 2024 - Industrial systems, installations and equipment and industrial products – Classification and designation of information – Part 1: Basic rules and classification of information**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 61355-1, utg 1:2009 med eventuella tillägg, ändringar och rättelser gäller ej fr o m 2028-01-31.

## Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

Genom att utforma sådana standarder blir säkerhetsfordringar tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

## SEK är Sveriges röst i standardiseringsarbetet inom elområdet

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

## Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

## Var med och påverka!

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

## SEK Svensk Elstandard

Box 1042  
172 21 Sundbyberg  
Tel 08-444 14 00  
elstandard.se

English Version

**Industrial systems, installations and equipment and industrial products - Classification and designation of information - Part 1: Basic rules and classification of information (IEC 81355-1:2024)**

Systèmes industriels, installations et matériels et produits industriels - Classification et désignation des informations - Partie 1: Règles de base et classification des informations (IEC 81355-1:2024)

Industrielle Systeme, Installationen, Ausrüstungen und Industrieprodukte - Klassifikation und Zuordnung von Informationsinhalten - Teil 1: Grundregeln (IEC 81355-1:2024)

This European Standard was approved by CENELEC on 2025-01-10. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.



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**

## European foreword

The text of document 3/1651/FDIS, future edition 1 of IEC 81355-1, prepared by TC 3 "Documentation, graphical symbols and representations of technical information" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 81355-1:2025.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2026-01-31 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2028-01-31 document have to be withdrawn

This document supersedes EN 61355-1:2008 and all of its amendments and corrigenda (if any).

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

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

## Endorsement notice

The text of the International Standard IEC 81355-1:2024 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 standard indicated:

- |                  |      |  |
|------------------|------|--|
| IEC 62023:2011   | NOTE | Approved as EN 62023:2012 (not modified)       |
| IEC 82045-1:2001 | NOTE | Approved as EN 82045-1:2001 (not modified)     |
| IEC 82045-2:2004 | NOTE | Approved as EN 82045-2:2005 (not modified)     |
| ISO 19650-1:2018 | NOTE | Approved as EN ISO 19650-1:2018 (not modified) |



IEC 81355-1

Edition 1.0 2024-12

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



HORIZONTAL STANDARD  
NORME HORIZONTALE

**Industrial systems, installations and equipment and industrial products –  
Classification and designation of information –  
Part 1: Basic rules and classification of information**

**Systèmes industriels, installations et matériels et produits industriels –  
Classification et désignation des informations –  
Partie 1: Règles de base et classification des informations**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

ICS 01.080.01; 01.080.30

ISBN 978-2-8322-9711-7

**Warning! Make sure that you obtained this publication from an authorized distributor.  
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

## CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references .....	7
3 Terms and definitions .....	7
4 General concepts .....	9
4.1 General.....	9
4.2 Classification principles .....	10
5 Designation of information containers.....	11
5.1 General.....	11
5.2 Designation of an information container .....	11
5.3 Relating information containers to objects.....	12
5.4 Structuring and designation of multiple information containers .....	13
5.5 Reference to a specific part of an information container .....	16
5.6 Form of presentation.....	16
5.7 Identification of documents .....	17
5.8 Information for identification purposes .....	17
6 Documentation .....	18
6.1 General.....	18
6.2 Moving from DCC to ICC.....	18
Annex A (informative) Information model .....	19
A.1 General.....	19
A.2 UML model .....	19
A.3 Entity descriptions .....	20
A.3.1 ObjectOfInterest .....	20
A.3.2 Information .....	20
A.3.3 Context.....	20
A.3.4 Data .....	21
A.3.5 InformationContainer .....	21
A.3.6 HumanPerceptionContainerAsDocument .....	22
A.3.7 NoHumanPerceptionContainer.....	22
A.3.8 Documentation .....	22
A.3.9 InformationContainerDesignation.....	22
A.3.10 ClassOfInformation .....	22
A.3.11 ClassificationScheme .....	23
A.4 Enumeration – IEC81355ClassificationDomain.....	23
A.5 Enumeration – IEC81355PresentationForms.....	24
Annex B (normative) Information kind classification codes .....	25
Annex C (informative) Form of presentation.....	33
Annex D (informative) From document kind class code (DCC) to information kind classification code (ICC).....	34
D.1 General.....	34
D.2 Comparison of DCC vs. ICC.....	34
Bibliography.....	42

Figure 1 – Interrelation of concepts.....	10
Figure 2 – Structure of an information container designation using ICC .....	12
Figure 3 – Relating information container designation to an object.....	12
Figure 4 – Syntax for identifying a sub-information container .....	13
Figure 5 – Example of subdivision of information containers .....	14
Figure 6 – Example of information container structure .....	15
Figure 7 – Information container designation combined with part reference .....	16
Figure 8 – Presentation of a form in combination with an information container designation .....	17
Figure A.1 – UML model of the concepts of this document .....	19
Table 1 – Example of multiple information containers related to one object.....	12
Table 2 – Example of one information container related to multiple objects.....	13
Table 3 – Example of information containers in a structure related to one object .....	15
Table 4 – Examples for information container designation with part reference.....	16
Table B.1 – Entry class for information kind classification codes (first letter code L1) .....	25
Table B.2 – Subclasses for information kind classification codes (first and second letter code) .....	26
Table C.1 – Letter codes for forms of presentation.....	33
Table D.1 – DCC data position A2 vs ICC entry class code L1 .....	35
Table D.2 – DCC data position A3 vs ICC subclass code L2 .....	36

# INTERNATIONAL ELECTROTECHNICAL COMMISSION

---

## **INDUSTRIAL SYSTEMS, INSTALLATIONS AND EQUIPMENT AND INDUSTRIAL PRODUCTS – CLASSIFICATION AND DESIGNATION OF INFORMATION –**

### **Part 1: Basic rules and classification of information**

#### 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.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <https://patents.iec.ch>. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 81355-1 has been prepared by IEC technical committee 3: Documentation, graphical symbols and representations of technical information, in close cooperation with ISO technical committee 10: Technical product documentation.

It is published as a double logo standard and has the status of a horizontal publication in accordance with IEC Guide 108.

This edition cancels and replaces the second edition of IEC 61355-1 published in 2008. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC 61355-1:2008:

- a) focusing on classification of information rather than classification of document kinds;
- b) introduced a classification scheme based on inherent content of information;
- c) introduced a distinction between an information container and a document, the latter being for human perception;
- d) introduction of information kind classification code (ICC), replacing document kind classification code (DCC);
- e) introduced structuring of information containers;
- f) introduced an information model of the concepts dealt with;
- g) introduced a conversion table for merging from the use of DCC to the use of ICC.

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

Draft	Report on voting
3/1651/FDIS	3/1680/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table. In ISO, the standard has been approved by 9 members out of 10 having cast a vote.

The language used for the development of this International Standard is English.

A list of all parts in the IEC 81355 series, published under the general title *Industrial systems, installations and equipment and industrial products – Classification and designation of information*, can be found on the IEC website.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

In this document, *italic type* is used as follows:

- terms defined in Clause 3 (applies to the text in Clause 3 only);
- in the description of the EXPRESS model, entity names and attribute identifiers.

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

- reconfirmed,
- withdrawn, or
- revised.

**IMPORTANT – The "colour inside" logo on the cover page of this document 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

Information is necessary for all activities during the life cycle of industrial systems, installations, equipment and industrial products. It may be produced in any phase or activity. Information may be received from and delivered to other parties, and different parties may need different information for the same object, depending on what is most suitable for their need.

This document is based on IEC 61355-1:2008 and the IEC 61355 DB standards, but it is now a new joint ISO and IEC document. As a new joint document, this document clarifies key concepts related to information and the designation of sets of information exchanged between parties, as represented by the focus on classification of information and the shift in focus from "documents" to "information containers".

Notably the paper-based presentation of information that was used as a basis for classification in IEC 61355-1:2008 is no longer present in this document. Instead, this document provides "information kind classification codes (ICC)" to be used in the designation of information containers, thereby replacing the previous "document kind class codes (DCC)" of IEC 61355-1:2008.

One aim of this document is to support the unambiguous exchange of information for the purpose of communication and understanding between parties. For this purpose, what the set of information is called in daily life is disregarded. Instead, the basis of understanding is based on a classification of the kind of information managed and exchanged between parties.

Another aim of this document is to set up rules for a specific method of correlating information and objects, i.e., to indicate to which object a specific set of information relates. For this purpose, a concept for designation of information containers is provided. Also, a concept for relating information containers to one or more objects is provided. By this, support is also provided for the structuring, storage and retrieval of information based on the information content of an information container and the object to which the information relates.

# **INDUSTRIAL SYSTEMS, INSTALLATIONS AND EQUIPMENT AND INDUSTRIAL PRODUCTS – CLASSIFICATION AND DESIGNATION OF INFORMATION –**

## **Part 1: Basic rules and classification of information**

### **1 Scope**

This part of the 81355 International Standard, published jointly by IEC and ISO, provides rules and guidelines for the classification and designation of information containers based on their inherent content. This document is applicable for information used in the life cycle of a system, e.g., industrial plants, construction entities and equipment.

This document defines classes of information and their information kind classification code (ICC). The defined classes and codes provided are used as values associated with metadata, e.g., in information management systems (see IEC 82045-1 and IEC 82045-2).

The rules, guidelines and classes are general and are applicable to all technical areas, for example, mechanical engineering, electrical engineering, construction engineering and process engineering. They can be used for systems based on different technologies or for systems combining several technologies.

This document also has the status of a horizontal publication in accordance with IEC Guide 108. It is intended for use by technical committees in preparation of publications related to classification and designation of information.

### **2 Normative references**

There are no normative references in this document.