

**TÖÖSTUSSÜSTEEMID, -PAIGALDISED JA -SEADMED NING  
TÖÖSTUSTOOTED. SÜSTEEMI TERMINALIDE  
TUVASTAMINE**

**Industrial systems, installations and equipment and  
industrial products - Identification of terminals within a  
system (IEC 61666:2010 + IEC 61666:2010/A1:2021)**

**EESTI STANDARDI EESSÕNA****NATIONAL FOREWORD**

See Eesti standard EVS-EN 61666:2010+A1:2021 sisaldab Euroopa standardi EN 61666:2010 ja selle muudatuse A1:2021 ingliskeelset teksti.	This Estonian standard EVS-EN 61666:2010+A1:2021 consists of the English text of the European standard EN 61666:2010 and its amendment A1:2021.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.  Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 17.09.2010, muudatus A1 06.08.2021.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.  Date of Availability of the European standard is 17.09.2010, for A1 06.08.2021.
Muudatusega A1 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümboolitega $\boxed{A_1}$ $\langle A_1 \rangle$ .  Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.	The start and finish of text introduced or altered by amendment A1 is indicated in the text by tags $\boxed{A_1}$ $\langle A_1 \rangle$ .  The standard is available from the Estonian Centre for Standardisation and Accreditation.

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English Version

Industrial systems, installations and equipment and industrial  
products - Identification of terminals within a system  
(IEC 61666:2010 + IEC 61666:2010/A1:2021)

Systèmes industriels, installations et appareils, et produits  
industriels - Identification des bornes dans le cadre d'un  
système  
(CEI 61666:2010 + IEC 61666:2010/A1:2021)

Industrielle Systeme, Anlagen und Ausrüstungen und  
Industrieprodukte - Identifikation von Anschlüssen in  
Systemen  
(IEC 61666:2010 + IEC 61666:2010/A1:2021)

This European Standard was approved by CENELEC on 2010-09-01. Amendment A1 was approved by CENELEC on 2021-07-21. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard and its amendment the status of a national standard without any alteration.

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Europäisches Komitee für Elektrotechnische Normung

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

## Foreword

The text of document 3/1001/FDIS, future edition 2 of IEC 61666, prepared by IEC TC 3, Information structures, documentation and graphical symbols, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61666 on 2010-09-01.

This European Standard supersedes EN 61666:1997.

This European Standard includes the following substantial changes with respect to EN 61666:1997:

- the terminology used in the publication has been adapted to the one used in EN 81346-1;
- a more comprehensive description of the designation principles is provided;
- additional examples illustrating terminal designations related to the function aspect and location aspect are provided;
- an additional example illustrating the use of terminal designation sets is provided;
- the former informative Annex A has been turned into a clause in the standard.

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The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2011-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2013-09-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61666:2010 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 60034-8:2007 NOTE Harmonized as EN 60034-8:2007 (not modified).
- IEC 60191-3:1999 NOTE Harmonized as EN 60191-3:1999 (not modified).

## **A1** Amendment A1 European foreword

The text of document 3/1487/FDIS, future IEC 61666/A1, prepared by IEC/TC 3 “Documentation, graphical symbols and representations of technical information” was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61666:2010/A1:2021.

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- latest date by which the document has to be implemented at national (dop) 2022-04-21 level by publication of an identical national standard or by endorsement
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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



HORIZONTAL PUBLICATION  
PUBLICATION HORIZONTALE

**Industrial systems, installations and equipment and industrial products –  
Identification of terminals within a system**

**Systèmes industriels, installations et appareils, et produits industriels –  
Identification des bornes dans le cadre d'un système**



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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



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Identification of terminals within a system**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### **INDUSTRIAL SYSTEMS, INSTALLATIONS AND EQUIPMENT AND INDUSTRIAL PRODUCTS – IDENTIFICATION OF TERMINALS WITHIN A SYSTEM**

#### 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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International Standard IEC 61666 has been prepared by IEC technical committee 3: Information structures, documentation and graphical symbols

It has the status of a horizontal standard in accordance with IEC Guide 108.

This second edition cancels and replaces the first edition of IEC 61666 published in 1997. This edition constitutes a technical revision.

This edition includes the following substantial changes with respect to the previous edition:

- the terminology used in the publication has been adapted to the one used in IEC 81346-1 Ed.2;
- a more comprehensive description of the designation principles is provided;
- additional examples illustrating terminal designations related to the function aspect and location aspect are provided;
- an additional example illustrating the use of terminal designation sets is provided;
- the former informative Annex A has been turned into a clause in the standard.

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

FDIS	Report on voting
3/1001/FDIS	3/1008/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.

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## **A1** AMENDMENT A1 FOREWORD

Amendment 1 to IEC 61666:2010 has been prepared by IEC technical committee 3: Documentation, graphical symbols and representations of technical information.

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

FDIS	Report on voting
3/1487/FDIS	3/1514/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Amendment is English.

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/standardsdev/publications/](http://www.iec.ch/standardsdev/publications/).

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- amended. **A1**

# INDUSTRIAL SYSTEMS, INSTALLATIONS AND EQUIPMENT AND INDUSTRIAL PRODUCTS – IDENTIFICATION OF TERMINALS WITHIN A SYSTEM

## 1 Scope

This International Standard establishes general principles for the identification of terminals of objects within a system, applicable to all technical areas (for example mechanical engineering, electrical engineering, construction engineering, process engineering). They can be used for systems based on different technologies or for systems combining several technologies.

Requirements for marking of terminal designations on products are not part of this publication.

NOTE The standard is based on the general principles for the structuring of systems including structuring of the information about systems, established in the International Standard ISO/IEC 81346 series, published jointly by IEC and ISO.

## 2 Normative references

The following referenced documents are indispensable for the application 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.

IEC 60417, *Graphical symbols for use on equipment*

IEC 60445, *Basic and safety principles for man-machine interface, marking and identification – Identification of equipment terminals and conductor terminations*

IEC 60757, *Code for designation of colours*

IEC 61082-1:2006, *Preparation of documents used in electrotechnology – Part 1: Basic rules*

IEC 81346-1, *Industrial systems, installations and equipment and industrial products – Structuring principles and reference designations – Part 1: Rules*

IEC 81714-3, *Design of graphical symbols for use in the technical documentation of products – Part 3: Classification of connect nodes, networks and their encoding*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1 object

entity treated in a process of development, implementation, usage and disposal

NOTE 1 The object may refer to a physical or non-physical “thing”, i.e. anything that might exist, exists or did exist.

NOTE 2 The object has information associated to it..

[IEC 81346-1, definition 3.1]