ICS 25.040.40 SLOVENSKÁ TECHNICKÁ NORMA Júl 2025

STN	**Zobrazenie elektrických a prístrojových objektov v digitálnych 3D modeloch počas projektovania**	**STN** **EN IEC 63261** 18 0056

Representation of electrical and instrument objects in digital 3D plant models during engineering

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. 06/25

Obsahuje: EN IEC 63261:2024, IEC 63261:2024

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 63261

December 2024

ICS 25.040.40

English Version

Representation of electrical and instrument objects in digital 3D plant models during engineering (IEC 63261:2024)

Représentation des objets électriques et d'instrumentation dans des modèles d'installation numérique 3D pendant la phase d'ingénierie
(IEC 63261:2024)

Darstellung von elektrischen und prozessleittechnischen Komponenten in digitalen 3D Modellen während der Projektabwicklung
(IEC 63261:2024)

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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

Ref. No. EN IEC 63261:2024 E

European foreword

The text of document 65E/1083/FDIS, future edition 1 of IEC 63261, prepared by SC 65E "Devices and integration in enterprise systems" of IEC/TC 65 "Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63261:2024.

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)	2025-12-31
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In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 61082-1	NOTE	Approved as EN 61082-1
IEC 61355-1	NOTE	Approved as EN 61355-1
IEC 61987 series	NOTE	Approved as EN IEC 61987 series
IEC 62424	NOTE	Approved as EN 62424
IEC 62708	NOTE	Approved as EN 62708
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IEC 63261

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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REPRESENTATION OF ELECTRICAL AND INSTRUMENT OBJECTS IN DIGITAL 3D PLANT MODELS DURING ENGINEERING

FOREWORD

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IEC 63261 has been prepared by subcommittee SC 65E Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation. It is an International Standard.

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

Draft	Report on voting
65E/1083/FDIS	65E/1137/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 International Standard 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. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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 in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

INTRODUCTION

Engineering and construction in the process industries typically involve the cooperation of multiple companies. Due to economic reasons, special knowledge, special license, authorization or simply capacity utilization, the work is divided between partners. They will arrange their cooperation for each individual project differently. This implies well defined division of work and responsibilities across the different phases of project execution.

Efficient engineering of a digital 3D plant model is inextricably linked to highly sophisticated tools for the different needs of the involved work processes and departments. By nature of the plant model, all engineering disciplines meet in the model and imply clear definitions of the content and interfaces.

Digital 3D plant models play an important part in electrical and instrumentation engineering to create technical drawings and avoid clashes between the elements provided by different engineering disciplines.

The first aim of this document is to define the level of details of electrical and instrumentation equipment representations placed in the 3D plant model. It specifies minimum requirements at the different maturity grades of the model for each equipment, its related metadata and reports retrieved from the 3D plant model.

The second aim of this document is to define a timeline and project milestones with the associated level of detail for the incorporation of electrical and instrumentation equipment into the 3D plant model.

This document aims at avoiding misunderstandings and erroneous design work in order to reduce additional corrective works and expenses for clarification.

REPRESENTATION OF ELECTRICAL AND INSTRUMENT OBJECTS IN DIGITAL 3D PLANT MODELS DURING ENGINEERING

1 Scope

This International Standard provides requirements for the E&I objects of a digital 3D plant model, used in the engineering phase to design and construct a process plant and its instrumentation. It provides guidance how to model plants and their electrical and instrumentation equipment.

This document also specifies the content and the possible output of the 3D plant model at project milestones.

This document can be used by the contractual partners to agree upon the content of the 3D plant model to be delivered at specified milestones.

This document does not specify the transfer and format of digital 3D plant models.

This document does not specify definitions or instructions to equipment representations and details of elements in the 3D plant model not belonging to electrical and instrumentation domains.

2 Normative references

There are no normative references in this document.