

INTERNATIONAL STANDARD

HORIZONTAL PUBLICATION

**Standard data element types with associated classification scheme –
Part 7: Data dictionary of cross-domain concepts**





THIS PUBLICATION IS COPYRIGHT PROTECTED
Copyright © 2024 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Secretariat
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search - webstore.iec.ch/advsearchform

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee, ...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

IEC Products & Services Portal - products.iec.ch

Discover our powerful search engine and read freely all the publications previews, graphical symbols and the glossary. With a subscription you will always have access to up to date content tailored to your needs.

Electropedia - www.electropedia.org

The world's leading online dictionary on electrotechnology, containing more than 22 500 terminological entries in English and French, with equivalent terms in 25 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.



IEC 61360-7

Edition 1.0 2024-01

INTERNATIONAL STANDARD

HORIZONTAL PUBLICATION

**Standard data element types with associated classification scheme –
Part 7: Data dictionary of cross-domain concepts**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 01.110; 25.040.40; 31.020

ISBN 978-2-8322-8130-7

Warning! Make sure that you obtained this publication from an authorized distributor.

CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references	6
3 Terms, definitions and abbreviated terms	6
3.1 Terms and definitions.....	6
3.2 Abbreviated terms.....	7
4 IEC 61360-7 data dictionary (domain).....	7
4.1 Overview and generic concepts	7
4.2 Further development and maintenance	10
Bibliography.....	11
Table 1 – Generic structures.....	8
Table 2 – Library of properties with attributes	9

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**STANDARD DATA ELEMENT TYPES
WITH ASSOCIATED CLASSIFICATION SCHEME –****Part 7: Data dictionary of cross-domain concepts**

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 61360-7 has been prepared by subcommittee 3D: Classes, Properties and Identification of products – Common Data Dictionary (CDD), of IEC technical committee 3: Documentation, graphical symbols and representations of technical information. It is an International Standard.

This document has the status of a horizontal publication in accordance with IEC Guide 108.

IEC 61360-7 is a standard in DB format and published in IEC CDD.

This document specifies the new data dictionary (domain) "IEC 61360-7 – General items" including its generic concepts.

Further development and maintenance of this document shall be published in IEC CDD according to the procedures defined in the ISO/IEC Directives Part 1 – IEC Supplement ANNEX SK. These procedures are named SDB content procedure – ANNEX SK, SK.4.4.

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

Draft	Report on voting
3D/397/CDV	3D/401/RVC

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

The IEC 61360 series as a whole specifies a general-purpose dictionary of technical terms covering the field of electrotechnology, electronics and related domains. The dictionary is structured in data dictionaries (domains) and specified in a computer-sensible form as a reference dictionary. By using the dictionary, applications can interact and share data in an unambiguous way with clear semantic meaning.

This document specifies the new data dictionary (domain) "IEC 61360-7 – General items" including its generic concepts. This data dictionary is intended for cross-domain use and is published in IEC CDD.

STANDARD DATA ELEMENT TYPES WITH ASSOCIATED CLASSIFICATION SCHEME –

Part 7: Data dictionary of cross-domain concepts

1 Scope

This part of IEC 61360 specifies the new data dictionary (domain) "IEC 61360-7 – General items" including its generic concepts. The IEC 61360-7 data dictionary provides concepts (dictionary elements, e.g. classes, properties) intended for cross-domain use.

This document has the status of a horizontal publication in accordance with IEC Guide 108.

The IEC 61360-7 data dictionary is published in IEC CDD and is available at <https://cdd.iec.ch>.

2 Normative references

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.

ISO/TS 29002-5:2009, *Industrial automation systems and integration – Exchange of characteristic data – Part 5: Identification scheme*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1.1

IEC CDD

IEC Common Data Dictionary

IEC-hosted system that includes a common repository with data dictionaries for all ISO and IEC industrial- or technical-related domains (or both) and that complies with the data model for data dictionaries defined in IEC 61360-2/ISO 13584-42 with an enhancement of its modelling capability adopted from IEC 62656-1

Note 1 to entry: Data dictionaries may include data from electrotechnical and non-electrotechnical domains.

Note 2 to entry: Content published in data dictionaries will become an ISO or IEC standard.

3.1.2

data dictionary

structured collection of dictionary elements that complies with the data model specified in IEC 61360-2/ISO 13584-42 and IEC 61360-1, and that represents product ontologies