

DRAFT INTERNATIONAL STANDARD

ISO/DIS 14617

ISO/TC 10/SC 10

Secretariat: DIN

Voting begins on:
2017-09-06

Voting terminates on:
2017-11-29

Graphical symbols for diagrams

Symboles graphiques pour schémas

ICS: 01.080.30

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Reference number
ISO/DIS 14617:2017(E)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 10, *Technical product documentation*, Subcommittee SC 10, *Process plant documentation*.

This **third** edition cancels and replaces the **second** edition (ISO 14617-1 -- 15:2002 and 2004), which has been technically revised and merged into one document.

The main changes compared to the previous edition are as follows:

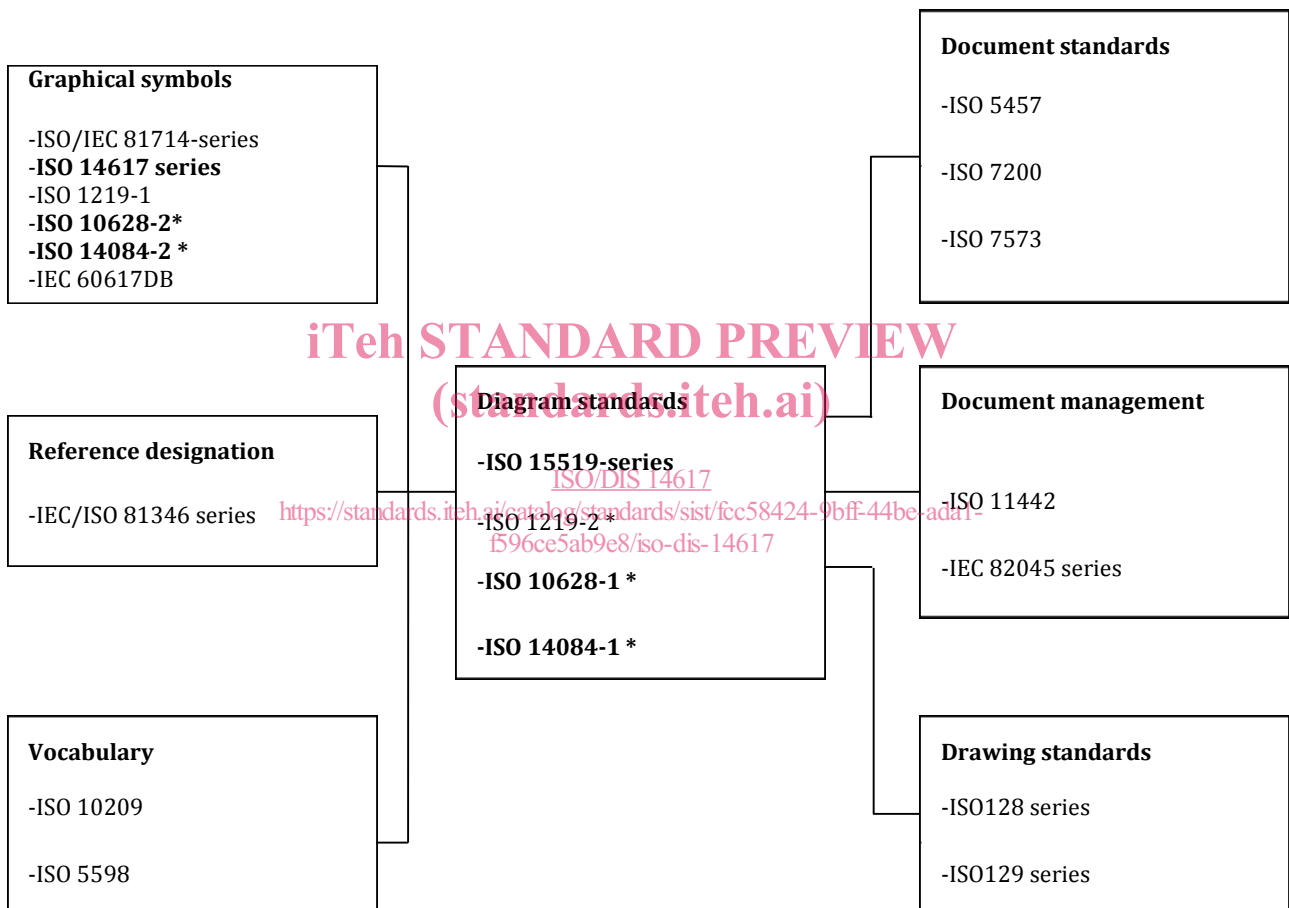
- all parts of ISO 14617 have been merged into one document;
- symbols from other relevant standards, see Figure 1, have been included..

Introduction

0.1 General

ISO/TC10/SC10 prepares standards for diagrams including graphical symbols, which together with standards prepared by other ISO committees and IEC constitute the basis for preparation of diagrams.

The interrelations between these standards are illustrated in Figure 1. Standards in bold are ISO/TC10/SC10 standards.



NOTE Standards marked * are collective application standards (See explanation in below clause: 0:4 Collective Application Standards)

Figure 1 – Interrelations between ISO and IEC standards for diagrams

0.2 Basis for revision of ISO 14617-series

ISO 14617 Part 1-12 and -15 were published 2002. Parts 13 and 14 were published 2004. The objective with the ISO 14617 project was to harmonize national and international standards for graphical symbols for diagrams and develop a recognized basic standard for graphical symbols for diagrams.

ISO 14617-series is widely used for development of diagrams for technical applications.

The use of the standard and development of the Collective Application Standards ISO 10628-2 and ISO 14084-2 has led to the realization that a revision of the ISO 14617-series was needed.

0.3 Major revision issues

- Merging of the 15 parts into one part.
- The structuring of presentation of graphical symbols has been changed in order to improve user's access to navigate and find symbols.
- Adding of new basis and supplementary symbols developed for ISO 10628-2 and ISO 14084-2.
- Deletion of symbols, which were duplicated from previous parts.

NOTE 1 Deleted symbols from previous ISO 14617 Part 2-15 are listed in informative Annex F.

- Term: "Application examples" renamed to "Symbol examples".
- Deletion of technological outdated symbols, especially within instrumentation and control, see Annex F.
- Reduction of the amount of symbol examples, see Annex F.
- Deletion of "electro technical like" symbols.

NOTE 2 ISO and IEC had in the late 1990s agreed to develop a common standard for graphical symbol for technical diagrams. The ISO input was the previous work on the ISO14617 project. The IEC input was the present IEC 617-series. The common ISO and IEC standard was cancelled in an early stage, as IEC preferred to work for a publication of IEC 60617 in data base form. At that time ISO was not prepared, for a similar data base. A number of "electro technical like" symbols were deleted before publication of the first parts in 2002.

- Letter codes for process variables and control functions (ISO 14617 Part 6) have been moved to ISO 15519-2, *Specification for diagrams for process industry – Part 2: Measurement and control*.
- Development of rules for use of letter codes associated with graphical symbols.

0.4 Collective application standards

Technical committees, requiring a field specific standard, are allowed, in co-operation with ISO/TC 10, to develop their own collective application standard for preparation of diagrams and graphical symbols in according to the rules given in ISO 15519-1 and/or ISO 14617. Collective application standards should not be contradictory with respect to the source standard(s).

0.5 Graphical symbols for fluid power – ISO 1219-1

The existing ISO 14617 (all parts) include fluid power symbols from the present valid standard for graphical symbols for fluid power component ISO 1219-1, 1991 edition. When this standard was revised in 2006 ISO/TC10/SC10 and ISO 131 agreed to harmonize it with ISO14617 (all parts) and publish

ISO 1219-1 2006, as a collective application standard of ISO 14617. During preparation of this revision of ISO 14617 it was realized that the harmonization benefits between graphical symbols for process diagrams and fluid power diagrams were minimal. Thus, most graphical symbols for fluid power diagrams, e.g. fluid power valves, have been deleted in the revised ISO 14617.

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Graphical symbols for diagrams

1 Scope

This International standard specifies graphical symbols for diagrams for general application.

The standard constitutes a symbol library, from which users can use the symbols or created symbol examples for use in diagrams.

Graphical symbols for fluid power objects are covered by ISO 1219-1 Graphical symbols for electro technical objects are covered by IEC 60617 DB.

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 10209, *Technical product documentation – Vocabulary – Terms relating to technical drawings, product definitions and related documentation*

ISO 15519 (all parts), *Specifications for diagrams for process industry*

ISO 81714 (all parts), *Design of graphical symbols for use in the technical documentation of products*

IEC 81714 (all parts), *Design of graphical symbols for use in the technical documentation of products*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in **ISO 10209** and the following apply.

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

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

3.1

function

intended or accomplished purpose or task

[SOURCE: IEC 81346-1, 3.5]