
**Design of graphical symbols for use in
the technical documentation of
products —**

**Part 1:
Basic rules**

*Création de symboles graphiques à utiliser dans la documentation
technique de produits —*

Partie 1: Règles fondamentales

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 81714-1 was prepared jointly by Technical Committees ISO/TC 10, *Technical product documentation*, Subcommittee SC 10, *Process plant documentation and tpd-symbols*, and IEC/TC 3, *Information structures, documentation and graphical symbols*. The draft was circulated for voting to the national bodies of both ISO and IEC.

This second edition of ISO 81714-1 cancels and replaces the first edition (ISO 81714-1:1999), which has been technically revised.

ISO 81714 consists of the following parts, under the general title *Design of graphical symbols for use in the technical documentation of products*:

— *Part 1: Basic rules*

IEC 81714 consists of the following parts, under the general title *Design of graphical symbols for use in the technical documentation of products*:

— *Part 2: Specification for graphical symbols in a computer sensible form, including graphical symbols for a reference library, and requirements for their interchange*

— *Part 3: Classification of connect nodes, networks and their encoding*

Design of graphical symbols for use in the technical documentation of products —

Part 1: Basic rules

1 Scope

This part of ISO 81714 specifies basic rules for the design of graphical symbols for use in the technical documentation of products, taking into account basic application needs.

NOTE Supplementary requirements for graphical symbols used in advanced computer-aided design systems are specified in IEC 81714-2 and IEC 81714-3.

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.

ISO 129-1, *Technical drawings — Indication of dimensions and tolerances — Part 1: General principles*

ISO 6428, *Technical drawings — Requirements for microcopying*

ISO/IEC 8859 (all parts), *Information technology — 8-bit single-byte coded graphic character sets*

ISO/IEC 10367, *Information technology — Standardized coded graphic character sets for use in 8-bit codes*

ISO/IEC 10646, *Information technology — Universal Multiple-Octet Coded Character Set (UCS)*

ISO 80000-2, *Quantities and units — Part 2: Mathematical signs and symbols to be used in the natural sciences and technology*

3 Terms and definitions

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

3.1

graphical symbol

visually perceptible figure with a particular meaning used to transmit information independently of language

[ISO 17724:2003^[6], 31]

NOTE 1 The graphical symbol may represent objects of interest, such as products, functions or requirements for manufacturing, quality control, etc.

NOTE 2 A graphical symbol is not to be confused with the simplified representation of products which is normally drawn to scale and which can look like a graphical symbol.