



SLOVENSKI STANDARD SIST EN ISO 7083:2021

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Nadomešča:
SIST EN ISO 7083:2001

Tehnična dokumentacija izdelkov - Simboli za uporabo v tehnični dokumentaciji izdelkov - Sorazmerja in mere (ISO 7083:2021)

Technical product documentation - Symbols used in technical product documentation - Proportions and dimensions (ISO 7083:2021)

Technische Produktdokumentation - Symbole für die Technische Produktdokumentation - Größenverhältnisse und Maße (ISO 7083:2021)

Documentation technique de produits - Symboles utilisés dans la documentation technique de produits - Proportions et dimensions (ISO 7083:2021)

Ta slovenski standard je istoveten z: EN ISO 7083:2021

ICS:

01.100.01	Tehnično risanje na splošno	Technical drawings in general
01.110	Tehnična dokumentacija za izdelke	Technical product documentation

SIST EN ISO 7083:2021

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 7083

May 2021

ICS 01.100.20

Supersedes EN ISO 7083:1994

English Version

**Technical product documentation - Symbols used in
technical product documentation - Proportions and
dimensions (ISO 7083:2021)**

Documentation technique de produits - Symboles
utilisés dans la documentation technique de produits -
Proportions et dimensions (ISO 7083:2021)

Technische Produktdokumentation - Symbole für die
Technische Produktdokumentation -
Größenverhältnisse und Maße (ISO 7083:2021)

This European Standard was approved by CEN on 24 April 2021.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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European foreword

This document (EN ISO 7083:2021) has been prepared by Technical Committee ISO/TC 10 "Technical product documentation" in collaboration with CCMC.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2021, and conflicting national standards shall be withdrawn at the latest by November 2021.

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

This document supersedes EN ISO 7083:1994.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

The text of ISO 7083:2021 has been approved by CEN as EN ISO 7083:2021 without any modification.

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INTERNATIONAL
STANDARD

ISO
7083

Second edition
2021-05

**Technical product documentation —
Symbols used in technical product
documentation — Proportions and
dimensions**

*Documentation technique de produits — Symboles utilisés dans la
documentation technique de produits — Proportions et dimensions*

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ISO 7083:2021(E)

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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 10, *Technical product documentation*, Subcommittee SC 1, *Basic conventions*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/SS F01, *Technical drawings*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 7083:1983), which has been technically revised.

The main changes to the previous edition are as follows:

- added symbols for standards under ISO/TC 10 and ISO/TC 213.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document is a collection of all the current symbols used in technical product documentation, predominantly created in ISO/TC 10 and ISO/TC 213. The symbols are indexed to the individual standards in which they were created and implemented. The ISO/TC 10/SC 1 validation process ensures the harmonization of symbols.

When developing new symbols for use in technical drawings, new symbols are submitted to ISO/TC 10 for review. ISO/TC 10 will confirm that a duplicate symbol with a different meaning does not exist and will add the new symbol to this document once the originating standard has been approved and published.

The following is a description of the process used for incorporating a new symbol:

- a) The originator fills in the new symbol application form.
- b) The originator attaches the symbol graphics file per the accepted graphics formats in the form.
- c) The originator sends the application and graphics file to ISO/TC 10/SC 1.
- d) ISO/TC 10/SC 1 forwards the documents to the validation team (appointed group of experts).
- e) The validation team reviews the application and symbol according to the following areas:
 - justification for new symbol;
 - design;
 - conformity with ISO 81714-1;
 - duplication and similarity to existing and registered symbols.
- f) The validation team prepares their report and sends the application documents back to ISO/TC 10/SC 1. Rejected proposals are sent back to the originator with an attached cause of rejection.
- g) If the new symbol request is approved, the originator is notified and the symbol is appointed a registry number and submitted to ISO Central Secretariat for registration and publication on the ISO Online browsing platform: <https://www.iso.org/obp>.
- h) The approved new symbol is added to the list of symbols to be added to the next revision of this document.

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Technical product documentation — Symbols used in technical product documentation — Proportions and dimensions

1 Scope

This document specifies the recommended proportions for the symbols used in technical product documentation. It gives recommended dimensions based on the grid related to the line width to be used.

This document does not apply to symbols used in process plant documentation, which are covered in ISO 81714-1.

The proportions of the symbols are based on the standard heights of lettering given in ISO 3098-1.

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 3098-1, *Technical product documentation — Lettering — Part 1: General requirements*

3 Terms and definitions

No terms and definitions are listed in this document.

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

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

4 General conditions

The lettering used with the symbols shall be in accordance with the specifications of ISO 3098-1.

On any one drawing the height, line width and type of lettering of the symbols should be equal to those applied for the dimensioning and other indications on that drawing.

The symbols and their lettering are produced by digital means or may be hand-written (using a rule for drawing the frames) or executed by other appropriate methods (e.g. stencils, transfers, mechanical drawing).

5 Dimensions

Recommended dimensions of the symbols with lettering type A are specified in [Table 1](#); dimensions for those with lettering type B are specified in [Table 2](#).

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Table 1 — Lettering type A

Dimensions in millimetres

Characteristic	Recommended dimensions					
Height of frame (H)	7	10	14	20	28	40
Height of characters (h)	3,5	5	7	10	14	20
Datum target indicator diameter (D) ^a	14	20	28	40	58	80
Line width (d)	0,25	0,35	0,5	0,7	1	1,4

^a See [Table 10](#).

Table 2 — Lettering type B

Dimensions in millimetres

Characteristic	Recommended dimensions						
Height of frame (H)	5	7	10	14	20	28	40
Height of characters (h)	2,5	3,5	5	7	10	14	20
Datum target indicator diameter (D) ^a	10	14	20	28	40	56	80
Line width (d)	0,25	0,35	0,5	0,7	1	1,4	2

^a See [Table 10](#).

The recommended widths of tolerance indicators frame are:

- first compartment, equal to height of frame (H);
- second compartment, to suit the length of the inscription;
- third and subsequent compartments, if required, to suit the width of the reference letter (or letters).

The distances between the vertical strokes of the compartments and the inscriptions shall be at least twice the line width, with a minimum of 0,7 mm.

6 Proportions


Examples for the proportions of the symbols for use with lettering type B, vertical or inclined, are shown in [Table 3](#) to [Table 50](#). The values are not part of the symbols.

The configurations are depicted on a grid with a spacing equal to the line width. The design of the inscribed characters is mostly not shown but shall be the same as in ISO 3098-1 for lettering type B, vertical or inclined.

For the alternative lettering type A, vertical or inclined, appropriate grids should be used.

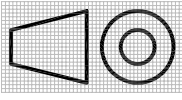
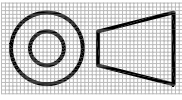
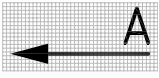
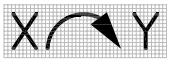
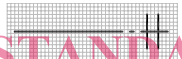

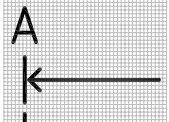

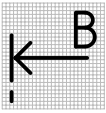

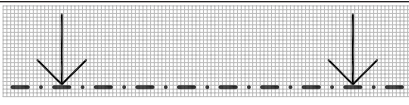
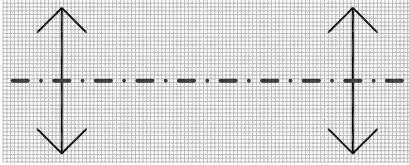
The symbols in ISO 128-2:2020 are shown in [Table 3](#).

Table 3 — ISO 128-2:2020 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
1			Dot ISO 128-2

The symbols in ISO 128-3:2020 are shown in [Table 4](#).

Table 4 — ISO 128-3:2020 symbols

No.	ISO reg. no.	Symbol	Symbol name or description Standards symbol used in
2			First angle projection ISO 128-3 ISO 5456-2
3			Third angle projection ISO 128-3 ISO 5456-2
4			Reference arrow ISO 128-3 Letter A shown as an example.
5			Arc arrow ISO 128-3 Letter X and Y shown as examples.
6			Symmetry ISO 128-3 ISO 129-1 The symbol is the two vertical lines (shown applied to a centreline).
7			30° cuts and section arrows ISO 128-3 Letter A shown as an example.
8			90° cuts and section arrows ISO 128-3 Letter A shown as an example.
9			Direction of view ISO 128-3
10			Cutting plane ISO 128-3 Letter B shown as an example.
11			Location of detail ISO 128-3
12			Direct orthographic projection ISO 128-3
13			Mirrored orthographic projection ISO 128-3

The symbols in ISO 128-15:2013 are shown in [Table 5](#).