Construction drawings — Spaces for drawing and for text, and title blocks on drawing sheets

 $ICS\ 01.100.30$



National foreword

This British Standard reproduces verbatim ISO 9431:1990 and implements it as the UK national standard. This standard, together with BS EN ISO 4157-1:1999, BS EN ISO 4157-2:1999, BS EN ISO 4157-3:1999, BS EN ISO 6284:1999 and BS EN ISO 8560:1999 supersedes, BS 1192-1:1984 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee B/212, Tolerances, drawing practice, modular co-ordination, joints, project information and computer modelling, to Subcommittee B/212/2, Construction drawing practice, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this Subcommittee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled "International Standards Correspondence Index", or by using the "Find" facility of the BSI Standards Electronic Catalogue.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN ISO title page, page 2, the ISO title page, pages ii to iv, pages 1 to 5 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

This British Standard, having been prepared under the direction of the Sector Committee for Building and Civil Engineering, was published under the authority of the Standards Committee and comes into effect on 15 October 1999

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Amendments issued since publication

Amd. No.	Date	Comments

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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN ISO 9431

July 1999

ICS 01.100.00

English version

Construction drawings — Spaces for drawing and for text, and title blocks on drawing sheets

(ISO 9431:1990)

Dessins de construction — Zones réservées au dessin et au texte, et cartouches d'inscription sur les feuilles de dessin (ISO 9431:1990)

Zeichnungen für das Bauwesen — Anordnung von Darstellungen, Texten und Schriftfeldern auf Zeichnungsvordrucken (ISO 9431:1990)

This European Standard was approved by CEN on 1 July 1999.

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Ref. No. EN ISO 9431:1999 E

Foreword

The text of the International Standard from Technical Committee ISO/TC 10 "Technical drawings, product definition and related documentation" of the International Organization for Standardization (ISO) has been taken over as an European Standard by CEN/CS.

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 January 2000, and conflicting national standards shall be withdrawn at the latest by January 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 9431:1990 has been approved by CEN as a European Standard without any modification.

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INTERNATIONAL STANDARD

ISO 9431

First edition 1990-12-15

Construction drawings — Spaces for drawing and for text, and title blocks on drawing sheets

Dessins de construction — Zones réservées au dessin et au texte, et cartouches d'inscription sur les feuilles de dessin



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Descriptors: Construction, drawings, technical drawings, spacing, title blocks.

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.

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. International Standard ISO 9431 was prepared by Technical Committee ISO/TC 10, *Technical drawings, product definition and related documentation*. Annex A of this International Standard is for information only.

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1 Scope

This International Standard specifies requirements concerning the placing, layout and contents of spaces for drawing and for text, and title blocks on construction drawings.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3098-1:1974, Technical drawings — Lettering — Part 1: Currently used characters. ISO 7200:1984, Technical drawings — Title blocks.

3 General layout (see Figure 1 and Figure 2)

The space on a drawing sheet is primarily divided into

- a space for drawing (see clause 4);
- a space for text (see clause **5**);
- a title block (see ISO 7200).

4 Space for drawing

The figures comprising a drawing shall be arranged in horizontal rows and vertical columns. A main figure, if one is identified as such, shall be placed at the top left of the drawing or at the top left of a group of figures. If possible, consideration shall be taken of A4-size folds of a drawing sheet when figures are drawn.

5 Space for text

5.1 General

The space for text on a drawing sheet shall contain all information necessary for the understanding of the contents of the drawing (see **5.2**), except for the text which needs to be placed adjacent to the figures in the space for drawing.

The space for text shall normally be placed at the right-hand edge of the drawing sheet (see Figure 1); the width of the space shall be equal to that of the title block, i.e. maximum 170 mm, or at least 100 mm.

If a figure takes up the whole width of the drawing sheet, the space for text shall be placed at the bottom edge of the drawing sheet (see Figure 2); the height of the space shall be chosen as required. The space for text shall be divided into columns of appropriate width; if possible, account shall be taken of folds in a folded drawing when deciding on column width.

5.2 Information to be placed in space for text 5.2.1 *General*

The following information is normally placed in the space for text:

- explanations (see **5.2.2**);
- instructions (see **5.2.3**);
- references (see **5.2.4**);
- location figure (see **5.2.5**);
- revision table (see **5.2.6**).

5.2.2 Explanations

Under "Explanations", information shall be given which is needed to read the drawing, e.g. explanations of special symbols, designations, abbreviations and units of dimensions.

5.2.3 Instructions

Under "Instructions", information, supplementary to the information in the space for drawing, shall be given which is needed to perform what is shown on the drawing, e.g. instructions relating to material, realization, surface treatment, assembly placing, number of units and combined dimensions.

If several objects are shown on the drawing, general instructions shall be placed in the space for text and special instructions shall be placed adjacent to the relevant figures.

5.2.4 References

Under "References", reference shall be made to supplementary drawings and other documents.

5.2.5 Location figure

A location figure shall be placed so that it remains visible after the drawing has been folded.

A location figure shall comprise, as required, the following figures:

- schematic site plan with area, arrow indicating the north, building, part of building, etc. marked (see Figure 3);
- schematic plan of building with area, part, etc. indicated (see Figure 4);
- schematic section through building with floor plan, direction of view, etc. indicated (see Figure 5).

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5.2.6 Revision table

A revision table shall be used to record all revisions such as corrections and/or amendments following the first issue. In addition, any other factor which might influence the validity of the drawing shall be recorded in the revision table.

A revision table shall contain the following information:

- designations of revision and, if required, number of places where correction has been made;
- details concerning the revision;
- date of revision;
- signature of person responsible for revision.

The width of the revision table shall be equal to either

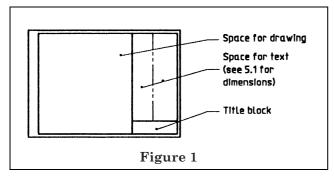
- a) the width of the title block, if the revision table is placed immediately above the title block,
- b) at least 100 mm, if the revision table is placed to the left of the title block.

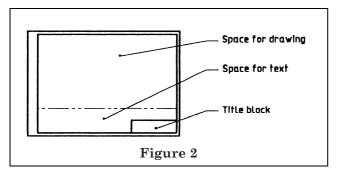
The height of each line in the revision table shall be in accordance with the rules given in ISO 3098-1 and shall meet the minimum requirement for spacing of base lines.

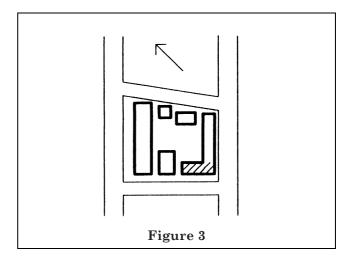
An example of the layout of a revision table is illustrated in Figure 6.

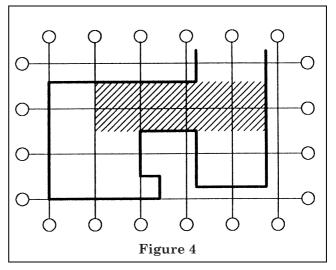
5.3 Layout

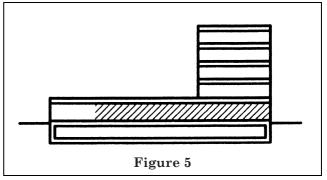
Examples of the layout of the space for text on the drawing sheet are given in Figure 7, Figure 8 and Figure 9.



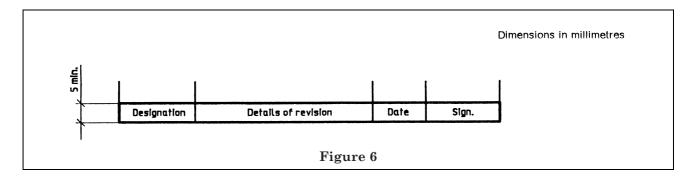


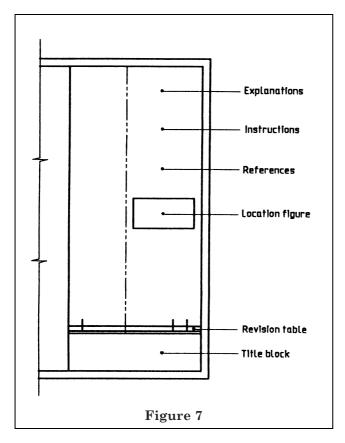


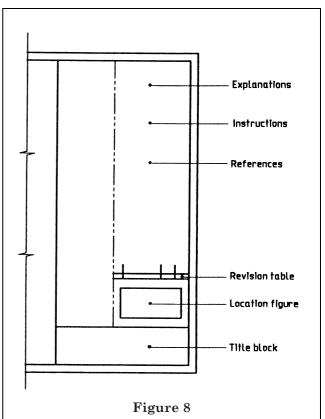


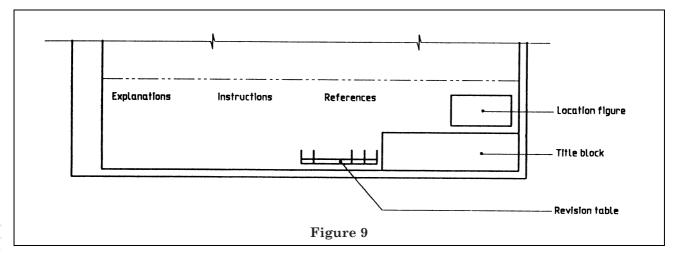


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Annex A (informative) Bibliography

- $\label{eq:control_state} \textbf{[1] ISO 128:1982}, \textit{Technical drawings} \textit{General principles of presentation}.$
- $\label{eq:sizes} \mbox{[2] ISO 5457:1980, $Technical $drawings-Sizes$ and layout of $drawing $sheets$.}$
- $[3] \ ISO\ 8048:1984,\ Technical\ drawings-Construction\ drawings-Representation\ of\ views,\ sections\ and\ cuts.$

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