INTERNATIONAL STANDARD

ISO 15362

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Optics and optical instruments — Stereomicroscopes — Information provided to the user

Optique et instruments d'optique — Stéréo-microscopes — Informations délivrées à l'utilisateur

Reference number
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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 3.

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.

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Optics and optical instruments — Stereomicroscopes — Information provided to the user

1 Scope

This International Standard specifies the minimum information to be provided by the manufacturer of stereomicroscopes to the user.

In addition to the mandatory information **(m)**, further data are recommended (r).

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 11883 *Optics and optical instruments — Microscopes — Marking of stereomicroscopes*

3 Data to be provided by the manufacturer

3.1 General

The following data shall be provided by the stereomicroscope manufacturer when the respective assemblies feature the properties described.

The format of the data shall be in accordance with ISO 11883.

3.2 General data concerning the stereomicroscope

(m) Magnification;

(m) Zoom range or number of discrete steps;

(m) Object field diameter;

(m) Free working distance d_1 (see figure 1);

(r) Numerical aperture.

NOTE These data can be compiled as shown in table 1. Where magnifications are changeable, all data should be given for the minimum and maximum values.

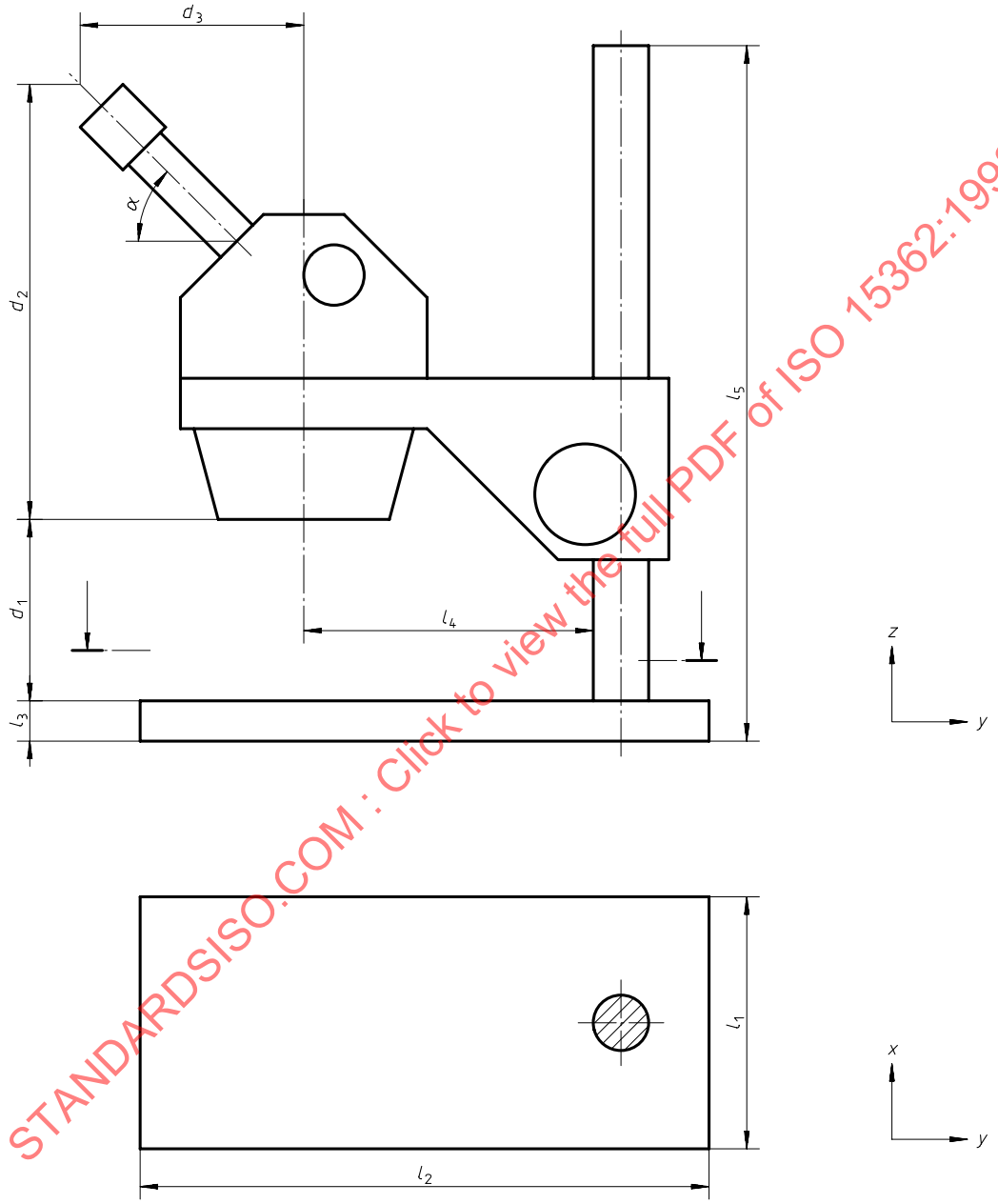

Figure 1 — Dimensions of the microscope and of the stand

Table 1 — Example of general data

Objective	Eyepiece	Zoom/ step position	Magni-fication	Object field diameter mm	Numerical aperture	Free working distance mm
0,5x	10x	min max	5x 20x	40 10	0,02 0,04	200
1,0x	10x	min max	10x 40x	20 5	0,04 0,08	100
2,0x	10x	min max	20x 80x	10 2,5	0,08 0,16	50
0,5x	16x	min max	8x 32x	32 8	0,02 0,04	200
1,0x	16x	min max	16x 63x	16 4	0,04 0,08	100
2,0x	16x	min max	32x 125x	8 2	0,08 0,16	50

3.3 Main body including tube

(m) Binocular or trinocular tube;

(m) Interpupillary distance adjustment range, in millimetres;

(m) Inclination angle α of the viewing direction (see figure 1);

(r) Dioptre adjustment;

(r) Distance d_2 from the exit pupil to the mechanical front of the main body (see figure 1);

(r) Distance d_3 from the exit pupil to the optical axis (see figure 1);

(r) Focal length of the tube lens, in millimetres (if any).

3.4 Objective (if removable or switchable)

(m) Magnification or focal length;

(m) Free working distance d_1 (see figure 1).

3.5 Eyepieces

(m) Magnification;

(m) Field of view;

(r) Interchangeability of graticules;

(r) Suitability for spectacle wearers;

(r) Dioptre adjustment.

3.6 Dimensions of the stand (see figure 1)

(r) Base dimensions l_1, l_2 and l_3 (measured in *x, y* and *z*);

(r) Free distance l_4 from the optical axis to the column;

(r) Overall mechanical height l_5 (without accessories);

(r) Range of focus drive.

3.7 Accessories

(m) The influence of the accessories on the basic data – for example on the magnification – shall be indicated**.**

(r) The manufacturer should list all accessories that are available for the stereomicroscope.

(r) The manufacturer should list all restrictions related to the single or multiple use of accessories.