INTERNATIONAL STANDARD

ISO 11253

First edition
1993-09-15

Lasers and laser-related equipment — Laser device — Mechanical interfaces

Lasers et équipements associés aux lasers — Source laser — Interfaces mécaniques

Reference number
ISO 11253:1993(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.

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 11253 was prepared by Technical Committee ISO/TC 172, *Optics and optical instruments*, Sub-Committee SC 9, *Electro-optical systems*.

International Organization for Standardization
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

Lasers and laser-related equipment — Laser device — Mechanical interfaces

1 Scope

This International Standard specifies dimensions of mounting-hole patterns for attaching external devices to a laser device around the beam.

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 262:1973, *ISO general purpose metric screw threads — Selected sizes for screws, bolts and nuts.*

ISO 263:1973, *ISO inch screw threads — General plan and selection for screws, bolts and nuts — Diameter range 0.06 to 6 in.*

ISO 11145:—[1], *Optics and optical instruments — Lasers and laser-related equipment — Terminology, symbols and units of measure for the specification and testing of lasers and laser assemblies.*

IEC 825:1984, *Radiation safety of laser products, equipment classification, requirements, and user's guide.*

3 Definitions

For the purposes of this International Standard, the definitions given in ISO 11145 and IEC 825 apply.

NOTE 1 According to these definitions, a laser device is a part of a laser product or of a laser machine.

4 Dimensions

The dimensions of the mechanical interface shall be chosen in accordance with figure 1 and table 1. The screw threads listed in table 1 are as given in ISO 262 and ISO 263. The holes may be threaded holes or clearance holes for the appropriate thread.

The pattern defined by these holes is located around the beam. The manufacturer shall specify the exact location of the grid relative to the beam, with the appropriate tolerance.

1) To be published.

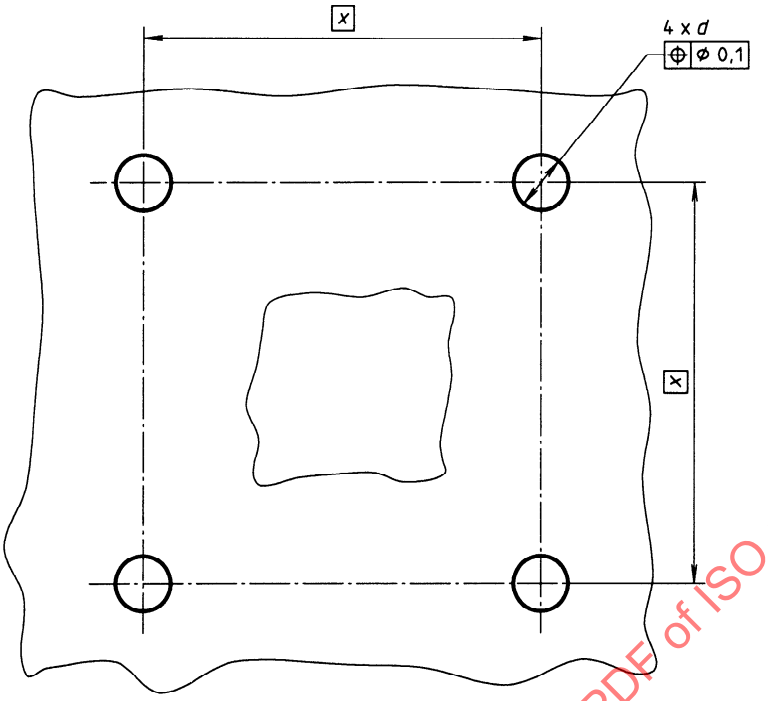

Figure 1

Table 1

Dimensions in millimetres

	x							
	10	**25**	**(25,4)**	**50**	**75**	**100**	**150**	**200**
d [1]	M2 M3	M3 M6 M8	(No. 4-40 UNC) (No. 6-32 UNC) (No. 8-32 UNC) (No. 10-32 UNF)	M6 M8 M10 M12	M6 M8 M10 M12	M6 M8 M10 M12	M8 M10 M12 M16	M8 M10 M12 M16 M20
NOTE — Sizes between parentheses are non-preferred sizes.								
1) Threaded hole, tolerance 4H, or clearance hole for the appropriate thread.								

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