

**Laserid ja laseriga seonduv seadmestik.
Laserseadmed. Dokumentatsiooni
miinimumnõuded**

Lasers and laser-related equipment - Laser device -
Minimum requirements for documentation

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 11252:2008 sisaldab Euroopa standardi EN ISO 11252:2008 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 18.08.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 16.07.2008.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 11252:2008 consists of the English text of the European standard EN ISO 11252:2008.

This standard is ratified with the order of Estonian Centre for Standardisation dated 18.08.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 16.07.2008.

The standard is available from Estonian standardisation organisation.

ICS 31.260

Võtmesõnad:

Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

English Version

Lasers and laser-related equipment - Laser device - Minimum requirements for documentation (ISO 11252:2004)

Lasers et équipements associés aux lasers - Source laser -
Exigences minimales pour la documentation (ISO
11252:2004)

Laser und Laseranlagen - Lasergerät -
Mindestanforderungen an die Dokumentation (ISO
11252:2004)

This European Standard was approved by CEN on 22 June 2008.

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 Management Centre or to any CEN member.

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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Foreword

The text of ISO 11252:2004 has been prepared by Technical Committee ISO/TC 172 "Optics and optical instruments" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 11252:2008 by Technical Committee CEN/TC 123 "Lasers and photonics" the secretariat of which is held by DIN.

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 2009, and conflicting national standards shall be withdrawn at the latest by January 2009.

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

This document supersedes EN ISO 11252:2004.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

For relationship with EC Directives, see informative Annexes ZA and ZB, which are integral part of this document.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of ISO 11252:2004 has been approved by CEN as a EN ISO 11252:2008 without any modification.

Annex ZA **((informative))**

Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide one means of conforming to Essential Requirements of the New Approach Directive 98/37/EC.

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

WARNING: Other requirements and other EU Directives may be applicable to the products falling within the scope of this International standard.

Annex ZB (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 2006/42/EC on machinery.

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Units	2
5 Technical data sheet	2
5.1 General	2
5.2 Beam output characteristics	2
5.3 Power supply	2
5.4 Liquids and gases	3
5.5 Environmental conditions	3
5.6 Mechanical interfaces	4
5.7 Safety	4
6 Instruction manual	4
7 Marking and labelling	4
Annex A (informative) Model of data sheet	5
Bibliography	9

Introduction

This document is a type B1 standard as defined in ISO 12100-1.

The provisions of this document may be supplemented or modified by a type C standard.

NOTE For machines which are covered by the scope of a type C standard and which have been designed and built according to the provisions of that standard, the provisions of that type C standard take precedence over the provisions of this type B1 standard.

Lasers and laser-related equipment — Laser device — Minimum requirements for documentation

1 Scope

This International Standard specifies the minimum documentation and information for marking and labelling, to be provided with laser devices (including laser diodes).

The documentation is presented on two levels: as a technical data sheet (Clause 5) and as an instruction manual (Clause 6).

This International Standard does not apply to laser products which incorporate laser devices.

It also does not apply to laser devices manufactured before the date of publication of this document.

Requirements on noise are not included in this standard. These requirements will be included in a subsequent amendment.

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 11145, *Optics and optical instruments — Lasers and laser-related equipment — Vocabulary and symbols*

ISO 11146-1, *Lasers and laser-related equipment — Test methods for laser beam widths, divergence angles and beam propagation ratios — Part 1: Stigmatic and simple astigmatic beams*

ISO 11146-2, *Lasers and laser-related equipment — Test methods for laser beam widths, divergence angles and beam propagation ratios — Part 2: General astigmatic beams*

ISO 11554, *Optics and optical instruments — Lasers and laser-related equipment — Test methods for laser beam power, energy and temporal characteristics*

ISO 11670, *Lasers and laser-related equipment — Test methods for laser beam parameters — Beam positional stability*

ISO 12005, *Lasers and laser-related equipment — Test methods for laser beam parameters — Polarization*

ISO 12100-1, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology*

ISO 13694, *Optics and optical instruments — Lasers and laser-related equipment — Test methods for laser beam power (energy) density distribution*

ISO 13695, *Optics and photonics — Lasers and laser-related equipment — Test methods for the spectral characteristics of lasers*

ISO 15367-1, *Lasers and laser-related equipment — Test methods for determination of the shape of a laser beam wavefront — Part 1: Terminology and fundamental aspects*

ISO 15367-2, *Lasers and laser-related equipment — Test methods for determination of the shape of a laser beam wavefront — Part 2: Shack-Hartmann sensors*

ISO 17526, *Optics and optical instruments — Lasers and laser-related equipment — Lifetime of lasers*

IEC 60825-1, *Safety of laser products — Part 1: Equipment classification, requirements and user's guide*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 11145 and IEC 60825-1 apply.

4 Units

All values shall be stated in SI units.

5 Technical data sheet

5.1 General

The documentation to be provided by the manufacturer/supplier shall include the following information:

- intended use of the laser device;
- technical characteristics of the laser device within the fields of use for which the device is delivered;
- type of the laser device;
- lifetime or maintenance information in accordance with ISO 17526;
- data related to the different characteristics and requirements described in this clause.

A model data sheet is shown in Annex A.

5.2 Beam output characteristics

The manufacturer/supplier shall indicate the characteristics listed in Table 1, if applicable, and the method used for the determination.

5.3 Power supply

5.3.1 Electrical power supply

The following items shall be specified, if applicable, and the referenced standards shall be stated:

- voltage and current rating (single or three phases) with frequency and permissible fluctuations;
- maximum power consumption.

If a battery is used, specify the type and characteristics of the battery required to supply power to the laser device and indicate if a battery is provided with the laser device.