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Lasers and laser-related equipment - Test methods for laser radiation-induced damage threshold - Part 3: Assurance of laser power (energy) handling capabilities (ISO/DIS 21254-3:2008)

Laser und Laseranlagen - Prüfverfahren für die laserstrahlungsinduzierte Zerstörschwelle - Teil 3: Zertifizierung der Belastbarkeit hinsichtlich Laserleistung (-energie) (ISO/DIS 21254-3:2008)

Lasers et équipements associés aux lasers - Méthodes d'essai pour seuil d'endommagement provoqué par laser - Partie 3: Possibilités de traitement par puissance (énergie) laser (ISO/DIS 21254-3:2008)

Ta slovenski standard je istoveten z: prEN ISO 21254-3

ICS:

31.260	Optoelektronika, laserska oprema	Optoelectronics. Laser equipment
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oSIST prEN ISO 21254-3:2009 **en**

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NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN ISO 21254-3

November 2008

ICS 31.260

Will supersede EN ISO 11254-3:2006

English Version

Lasers and laser-related equipment - Test methods for laser radiation-induced damage threshold - Part 3: Assurance of laser power (energy) handling capabilities (ISO/DIS 21254-3:2008)

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This draft European Standard is submitted to CEN members for parallel enquiry. It has been drawn up by the Technical Committee CEN/TC 123.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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

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Foreword

This document (prEN ISO 21254-3:2008) has been prepared by Technical Committee ISO/TC 172 "Optics and optical instruments" in collaboration with Technical Committee CEN/TC 123 "Lasers and photonics", the secretariat of which is held by DIN.

This document is currently submitted to the parallel Enquiry.

This document will supersede EN ISO 11254-3:2006.

Endorsement notice

The text of ISO/DIS 21254-3:2008 has been approved by CEN as a prEN ISO 21254-3:2008 without any modification.

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DRAFT INTERNATIONAL STANDARD ISO/DIS 21254-3

ISO/TC 172/SC 9

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Lasers and laser-related equipment — Test methods for laser radiation-induced damage threshold —

Part 3:

Assurance of laser power (energy) handling capabilities

Lasers et équipements associés aux lasers — Méthodes d'essai pour seuil d'endommagement provoqué par laser —

Partie 3: Possibilités de traitement par puissance (énergie) laser

(Revision of ISO 11254-3:2006)

ICS 31.260

ISO/CEN PARALLEL ENQUIRY

The CEN Secretary-General has advised the ISO Secretary-General that this ISO/DIS covers a subject of interest to European standardization. **In accordance with the ISO-lead mode of collaboration as defined in the Vienna Agreement, consultation on this ISO/DIS has the same effect for CEN members as would a CEN enquiry on a draft European Standard.** Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month FDIS vote in ISO and formal vote in CEN.

In accordance with the provisions of Council Resolution 15/1993 this document is circulated in the English language only.

Conformément aux dispositions de la Résolution du Conseil 15/1993, ce document est distribué en version anglaise seulement.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.

Pour accélérer la distribution, le présent document est distribué tel qu'il est parvenu du secrétariat du comité. Le travail de rédaction et de composition de texte sera effectué au Secrétariat central de l'ISO au stade de publication.

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ISO/DIS 21254-3

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ISO/DIS 21254-3

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 2.

The main task of technical committees is to prepare International Standards. 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.

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.

ISO 21254-3 was prepared by Technical Committee ISO/TC 172, *Optics and photonics*, Subcommittee SC 9, *Electro-optical systems* and by Technical Committee CEN/TC 123, *Lasers and photonics* in collaboration.

This second edition cancels and replaces the first edition (ISO 11254-1:2000, ISO 11254-2:2001 and ISO 11254-3:2006), which has been technically revised.

ISO 21254 consists of the following parts, under the general title *Lasers and laser-related equipment — Test methods for laser radiation-induced damage threshold*:

Part 1: Definitions and general principles;

Part 2: Threshold determination;

Part 3: Assurance of laser power (energy) handling capabilities;

Part 4: Inspection, detection and measurement (Technical Report).

Annexes A to C are for information only.

Introduction

This part of ISO 21254 describes a test procedure for assurance of power density (energy density) handling capability of optical components, both coated and uncoated.

This part of ISO 21254 provides a test procedure for obtaining consistent measurement results, which may be used for acceptance tests or may be compared between different testing laboratories.

This testing procedure is applicable to all combinations of different laser wavelength and pulse length durations. Comparison of laser damage threshold data may be misleading unless the measurements have been done at identical wavelengths and pulse lengths.

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