
Optika in optični instrumenti – Laserji in laserska oprema – Merjenje faznega zamika optičnih komponent za polarizirano lasersko sevanje (ISO/DIS 24013:2005)

Optics and photonics - Lasers and laser-related equipment - Measurement of phase retardation of optical components for polarized laser radiation (ISO/DIS 24013:2005)

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March 2005

ICS

English version

Optics and photonics - Lasers and laser-related equipment -
Measurement of phase retardation of optical components for
polarized laser radiation (ISO/DIS 24013:2005)

Optique et photonique - Lasers et équipement associé aux
lasers - Mesure du retard de phase des composants
optiques pour le rayonnement laser polarisé (ISO/DIS
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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.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (prEN ISO 24013:2005) has been prepared by Technical Committee ISO/TC 172 "Optics and optical instruments" in collaboration with Technical Committee CEN/TC 123 "Lasers and laser-related equipment", the secretariat of which is held by DIN.

This document is currently submitted to the parallel Enquiry.

Endorsement notice

The text of ISO 24013:2005 has been approved by CEN as prEN ISO 24013:2005 without any modifications.

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DRAFT INTERNATIONAL STANDARD ISO/DIS 24013

ISO/TC 172/SC 9

Secretariat: DIN

Voting begins on:
2005-03-24

Voting terminates on:
2005-08-24

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Optics and photonics — Lasers and laser-related equipment — Measurement of phase retardation of optical components for polarized laser radiation

*Optique et photonique — Lasers et équipement associé aux lasers — Mesure du retard de phase des
composants optiques pour le rayonnement laser polarisé*

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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.

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Foreword

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ISO 24013 was prepared by Technical Committee ISO/TC 172, *Optics and photonics*, Subcommittee SC 9, *Electro-optical systems*.

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Introduction

For the generation or maintenance of specific states of polarization the influence of optical components on the beam polarization is crucial. Normally it is desirable that the state of polarization is not influenced by the optical components used. For generating circularly polarized radiation from linearly polarized radiation $\pi/2$ phase retarders are used.

This international standard describes methods to determine the relative phase retardation of optical components with respect to the x- and y-axis of the polarization and s- and p-polarization, respectively. This standard is necessary for optics manufacturers, suppliers and customers of such optics for the determination of the influence of phase retardation of optical components.

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Optics and photonics — Lasers and laser-related equipment — Measurement of phase retardation of optical components for polarized laser radiation

1 Scope

This International Standard specifies test methods for the determination of the optical phase retardation of optical components to polarized laser beams.

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

ISO 14644-1, *Cleanrooms and associated controlled environments — Part 1: Classification of airborne particulate cleanliness for cleanrooms and clean zones.* 013:2007

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3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 11145 and ISO 12005 apply.