

Oftalmilised instrumendid. Tabelprojektorid

Ophthalmic instruments - Chart projectors

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 10938:1999 sisaldab Euroopa standardi EN ISO 10938:1998 ingliskeelset teksti. Käesolev dokument on jõustatud 12.12.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 10938:1999 consists of the English text of the European standard EN ISO 10938:1998. This document is endorsed on 12.12.1999 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.
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Käsitlusala: Käesolev rahvusvaheline standard koos standardiga ISO 15004 esitab miinimumnõuded ja testimismeetodid tabelite projitseerimiseks kasutatavatele süsteemidele, k.a. optilised projektorid ja ekraan, mis on ette nähtud märkide projitseerimiseks, et kindlaks määrata inimese silmade nägemisteravust, refraktsiooniseisundit ja binokulaarset funktsioneerimist.	Scope:
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ICS 11.040.70

Võtmesõnad: juhised, märgistus, oftalmiline instrumentarium, optika, optiline instrumentarium, optilised omadused, tabelprojektorid, tehnilised andmed, testimine, testimisvahendid, tööomaduste testid, tüüptestimine (-testid)

ICS 11.040.70

Descriptors: Optics, chart projectors.

English version

Ophthalmic instruments
Chart projectors
(ISO 10938 : 1998)

Instruments ophtalmiques –
Projecteurs d'optotypes
(ISO 10938 : 1998)

Ophthalmische Instrumente –
Sehzeichenprojektoren
(ISO 10938 : 1998)

This European Standard was approved by CEN on 1998-03-09.

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 Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

International Standard

ISO 10938 : 1998 Ophthalmic instruments – Chart projectors, which was prepared by ISO/TC 172 'Optics and optical instruments' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 170 'Ophthalmic optics', the Secretariat of which is held by DIN, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by November 1998 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 10938 : 1998 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

1 Scope

This International Standard, together with ISO 15004, specifies minimum requirements and test methods for chart projector systems, including an optical projector and a screen, for the projection of targets used for the determination of visual acuity, the refractive status and the binocular functions of the human eye.

This International Standard takes precedence over ISO 15004, if differences exist.

2 Normative references

The following standards contain provision which, through reference in this text, constitute provision 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.

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| ISO 8596:1994 | <i>Ophthalmic optics - Visual acuity testing - Standard optotype and its presentation</i> |
| ISO 8597:1994 | <i>Optics and optical instruments - Visual acuity testing - Method of correlating optotypes</i> |
| ISO 15004:1997 | <i>Ophthalmic instruments - Fundamental requirements and test methods</i> |
| IEC 60601-1:1988 | <i>Medical electrical equipment - Part 1: General requirements for safety</i> |

3 Requirements

3.1 General

The chart projector shall conform to the requirements specified in ISO 15004.

3.2 Functional requirements

The chart projector shall conform to the requirements specified in 3.2.1 to 3.2.5.

NOTE - Verification of these requirements is described in clause 4.

3.2.1 Optotypes

If designed to be used for certification purposes, the chart projector shall be equipped either with the standard optotype according to ISO 8596 in the grades specified therein, or with optotypes which are correlated to the standard optotype by the method described in ISO 8597.