

Ophthalmic instruments — Tonometers (ISO 8612:2009)

ICS 11.040.70

National foreword

This British Standard is the UK implementation of EN ISO 8612:2009. It supersedes BS EN ISO 8612:2001 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee CH/172/6, Ophthalmic instruments.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Ophthalmic instruments - Tonometers (ISO 8612:2009)

Instruments ophtalmiques - Tonomètres (ISO 8612:2009)

Ophthalmische Instrumente - Augentonometer (ISO 8612:2009)

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Foreword

This document (EN ISO 8612:2009) has been prepared by Technical Committee ISO/TC 172 "Optics and photonics" in collaboration with Technical Committee CEN/TC 170 "Ophthalmic optics" 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of an identical text or by endorsement, at the latest by April 2010, and conflicting national standards shall be withdrawn at the latest by April 2010.

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 8612:2001.

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Endorsement notice

The text of ISO 8612:2009 has been approved by CEN as a EN ISO 8612:2009 without any modification.

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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.

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ISO 8612 was prepared by Technical Committee ISO/TC 172, *Optics and photonics*, Subcommittee SC 7, *Ophthalmic optics and instruments*.

This second edition cancels and replaces the first edition (ISO 8612:2001), which has been technically revised.

Ophthalmic instruments — Tonometers

1 Scope

This International Standard, together with ISO 15004-1, specifies minimum requirements and the design compliance procedure for tonometers intended for routine clinical use in the estimation of intraocular pressure (IOP).

This International Standard takes precedence over ISO 15004-1, if differences exist.

NOTE The true intraocular pressure is seldom directly measured since it would require invasion of the eye. Since the true IOP cannot be clinically measured, alternative methods are specified for determining a reference IOP (Annex A and Annex B).

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 15004-1, *Ophthalmic instruments — Fundamental requirements and test methods — Part 1: General requirements applicable to all ophthalmic instruments*

IEC 60601-1:2005, *Medical electrical equipment — Part 1: General requirements for basic safety and essential performance*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

intraocular pressure

IOP

pressure within the eye

NOTE It is expressed in millimetres of mercury (mmHg), where 1 mmHg = 0,133 3 kPa.

3.2

reference tonometer

tonometer as described in Annex A

3.3

test tonometer

verified tonometer used in design compliance testing

3.4

reference IOP

IOP that is measured with a reference tonometer, as specified in Annex A, in accordance with the procedures given in Annex B