



NSAI
Standards

Irish Standard
I.S. EN ISO 8598-1:2014

Optics and optical instruments - Focimeters - Part 1: General purpose instruments used for measuring spectacle lenses (ISO 8598- 1:2014)

I.S. EN ISO 8598-1:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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English Version

**Optics and optical instruments - Focimeters - Part 1: General
purpose instruments used for measuring spectacle lenses (ISO
8598-1:2014)**

Optique et instruments d'optique - Frontofocomètres -
Partie 1: Instruments pour cas généraux pour le mesurage
des verres de lunettes (ISO 8598-1:2014)

Optik und optische Instrumente - Scheitelbrechwert-
Messgeräte - Teil 1: Instrumente für den allgemeinen
Gebrauch zur Verwendung für die Brillenglas-Messung
(ISO 8598-1:2014)

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Contents

Page

Foreword.....	3
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Foreword

This document (EN ISO 8598-1:2014) 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of an identical text or by endorsement, at the latest by March 2015, and conflicting national standards shall be withdrawn at the latest by March 2015.

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.

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

Endorsement notice

The text of ISO 8598-1:2014 has been approved by CEN as EN ISO 8598-1:2014 without any modification.

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INTERNATIONAL STANDARD

**ISO
8598-1**

First edition
2014-09-15

Optics and optical instruments — Focimeters —

Part 1: General purpose instruments

Optique et instruments d'optique — Frontofocomètres —

Partie 1: Instruments pour cas généraux



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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Technical requirements for general purpose focimeters	3
5 Metrological requirements	5
5.1 General.....	5
5.2 Reference wavelength.....	5
5.3 Performance requirement.....	5
6 Test procedures	8
6.1 General.....	8
6.2 Checking the indication errors.....	8
6.3 Checking the axis marker for the optical centre of lens.....	8
6.4 Checking the alignment of the axis marker.....	9
6.5 Checking the adjusting rail.....	9
6.6 Checking the non-symmetric error for automated focimeters.....	9
6.7 Checking the repeatability of vertex power measurement for automated focimeters.....	10
6.8 Checking for the centration error.....	10
6.9 Checking the capability of focimeters to measure tinted lenses.....	10
6.10 Checking the astigmatic axis repeatability for low-powered cylinder lens.....	10
6.11 Special procedures for eyepiece focimeters.....	11
6.12 Criterion for image focusing in manual focusing focimeters.....	11
7 Marking	11
7.1 Reference to ISO 8598-1.....	11
7.2 General information to be supplied by the manufacturer.....	11
7.3 Additional information to be supplied by the manufacturer.....	12
Annex A (informative) Use of correction values when measuring spectacle lenses	13
Annex B (informative) Example for evaluation of uncertainty of measurement for automated focimeters for general use	18
Annex C (normative) Specifications of special reference lenses	24
Annex D (informative) Information for users on the performance of general purpose focimeters covered by this part of ISO 8598	26
Bibliography	27

ISO 8598-1:2014(E)

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 172, *Optics and photonics*, Subcommittee SC 7, *Ophthalmic optics and instruments*.

This first edition of ISO 8598-1 cancels and replaces ISO 8598:1996, of which it constitutes a technical revision. It also incorporates the Technical Corrigendum ISO 8598:1996/Cor.1:1998.

ISO 8598 consists of the following parts, under the general title *Optics and optical instruments — Focimeters*:

— *Part 1: General purpose instruments*

Introduction

General purpose focimeters are intended for measurement of contact lenses, single-vision, multifocal and progressive-power or degressive-power spectacle lenses, both uncut and mounted in spectacle frames, and for the orientation and marking of spectacle lenses.

Optics and optical instruments — Focimeters —

Part 1: General purpose instruments

1 Scope

This part of ISO 8598 specifies requirements and test methods for general purpose focimeters designed for the measurement of vertex powers, cylinder axis, prismatic power and prism base setting within a restricted area at a specified location of a lens. This excludes instruments that can only measure the whole lens at once.

It is applicable to instruments typically intended for use by the ophthalmic community, with the capability to demonstrate conformity of lens products with the International Standards existing for these lenses.

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 7944, *Optics and optical instruments — Reference wavelengths*

ISO 8429, *Optics and optical instruments — Ophthalmology — Graduated dial scale*

ISO 9342-1, *Optics and optical instruments — Test lenses for calibration of focimeters — Part 1: Test lenses for focimeters used for measuring spectacle lenses*

3 Terms and definitions

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

3.1

adjusting rail

movable rail or bar used as the reference axis for spectacles during measurement and which is aligned perpendicularly to the optical axis of the focimeter and parallel to the axis direction 0° to 180°

Note 1 to entry: This is also called the lens table or frame rest.

3.2

capability

ability of a system or process to achieve the required performance

3.3

general purpose focimeter

instrument that is used to measure vertex powers, cylinder axis and prismatic effects of spectacle and contact lenses, to orientate and mark uncut lenses, and to verify the correct mounting of lenses in spectacle frames

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