

**Optics and optical instruments - Focimeters - Part 1:  
General purpose instruments (ISO 8598-1:2014)**

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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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**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

## 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of an identical text or by endorsement, at the latest by March 2015, and conflicting national standards shall be withdrawn at the latest by March 2015.

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### 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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## 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  $0^\circ$  to  $180^\circ$

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