Corneal topography

HTG-1

Corneal topography with keratometry and Zernike analysis.

HTG-1 Corneal topography and contact lens fitting with HIS-1 software for patient monitoring.



HTG-1 · Equipment view

Manufacturer illustration: the configuration shown may differ from the delivered configuration.

Sources and documentation · Source checked on 2026-10-18

Request a quote

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Generated on 2026-11-28

> This product sheet is prepared by ASEM. It does not replace the manufacturer’s official documentation or instructions for use.

Key advantages

Corneal mapping

Topographic mapping of the corneal surface.

Sources and documentation · Source checked on 2026-10-05

Zernike analysis

Corneal aberration analysis using Zernike terms.

Sources and documentation · Source checked on 2026-10-05

Integrated keratometry

Corneal curvature measurement in the same examination.

Sources and documentation · Source checked on 2026-10-05

Capabilities in practice

Corneal topography

Sources and documentation

Keratometry

Sources and documentation

Zernike analysis

Sources and documentation

Map the corneal surface with Placido

The 24 Placido rings support axial, tangential, refractive-power and elevation maps. This topography describes the corneal surface; pachymetry is not inferred from these maps.

- 24 Placido rings.
- More than 6,220 measured points; more than 100,000 analysed points.

Sources and documentation

Combine corneal shape and optical analysis

Zernike coefficients complement keratometry values. The system also presents keratoconus indices, pupillometry and white-to-white distance.

- Keratometry and Zernike aberration decomposition.
- Keratoconus indices, pupillometry and white-to-white.

Sources and documentation

Compare corneal representations

The maps show corneal shape through several complementary representations.

- Axial and tangential maps.
- Refractive-power and elevation maps.

Sources and documentation

Measure pupil and white-to-white

Diameter measurements complement curvature maps in the assessment.

- Pupil: 0.5–10 mm.
- White-to-white: 7–14 mm.

Sources and documentation

Corneal topography and analysis

Analysis projects concentric patterns onto the corneal surface to provide information on:

• Keratometry: corneal curvature measurement.

• Topography: corneal shape and irregularities.

• Keratoconus: detection of specific abnormalities.

• Zernike coefficients: optical aberration analysis.

• Pupillometry: dynamic pupil measurement.

• White-to-white distance: used in sizing certain implantable devices.

• Virtual contact lens fitting.

• Detailed axial, tangential, refractive power and elevation maps.

• HIS-1 software for clinical analysis and ocular disease monitoring.

Advanced corneal analysis

HUVITZ corneal assessment technology supports precise assessment of complex conditions such as keratoconus and irregular astigmatism.

Corneal mapping identifies irregularities and supports personalised treatment.

The HUVITZ topographer assists postoperative monitoring and contact lens or implant fitting.

Comprehensive analysis of curvature, optical aberrations and refractive power.

Aberrometry and Zernike analysis

Detects optical aberrations of the corneal surface.

HTG decomposes optical aberrations according to visual defects, including higher-order aberrations.

Supports assessment of corneal conditions such as keratoconus and irregular astigmatism.

Helps plan personalised refractive surgery and precise contact lens fitting.

Dynamic pupillometry

The HTG-1 precisely measures pupil dimensions, including under mesopic conditions, and decentration.

Maps and graphs present these analyses clearly for implant-related assessment.

White-to-white measurement

• Intraocular lenses (IOLs) and phakic lenses.

• Refractive surgery and intracorneal rings.
White-to-white measurement assesses corneal size when planning certain surgical or corneal procedures.

• Specialised contact lens and scleral lens fitting.

• Assessment and monitoring of corneal disease and morphological abnormalities.

Designed for a smoother workflow

Organise maps and reports

Reports organise topography, SimK, meridians, keratoconus and white-to-white data. The manufacturer describes HIIS-1 review and DICOM compatibility for practice integration.

Depending on configuration

- Structured topographic-analysis reports.
- HIIS-1 review and DICOM communication according to configuration.

Sources and documentation

Simulate contact-lens fitting

The software provides a simulated fluorescein view from topographic data.

- Fitting simulation on the corneal profile.
- Calculated view, distinct from an image with fluorescein applied.

Sources and documentation

Designed for daily practice



HTG-1 · Equipment view

Sources and documentation

Technical specifications & documentation

Software

HIIS; manufacturer-stated DICOM compatibility

Sources and documentation

Downloads & resources

- https://huvitz.com/ko/product/htg-1/
  Source checked on 2026-10-05
- https://huvitz.com/ko/product/htg-1/
  Source checked on 2026-10-18
- https://huvitz.com/wp-content/uploads/2025/02/HTG-1_6p_eng_240115_v2.pdf
  Source checked on 2026-10-18

Your questions about HTG-1

What is the documented Software of HTG-1?

HIIS; manufacturer-stated DICOM compatibility

Sources and documentation

Are over 100,000 points all measured directly?

The specification distinguishes over 100,000 analysed points from over 6,220 measured points. The analysed total should not be presented as a direct-measurement count.

Sources and documentation

What is the difference between measured and analysed points?

The specification distinguishes more than 6,220 measured points and more than 100,000 analysed points from 24 Placido rings. The two counts are not interchangeable.

Sources and documentation

Is the lens simulation a photograph with dye?

No. The fluorescein view is a software simulation calculated for fitting from topography. It is distinct from a photograph taken after fluorescein application.

Sources and documentation

Related products



HBM-1

Huvitz

Optical biometry

Optical biometry and corneal topography for preoperative assessment.

View product



Eyestar 900

Haag-Streit

Optical biometry

Optical biometry and keratometry in a system using EyeSuite.

View product



Lenstar 900

Haag-Streit

Optical biometry

Optical biometer with keratometry and EyeSuite software.

View product



HRK-1

Huvitz

Auto refractors and keratometers

Refraction, keratometry and contact lens fitting assistance.

View product

Explore the ASEM clinical catalogue

Browse related areas of the ASEM catalogue. These links do not extend the indications of this device.

Diagnostics and biometry

More than a device, a long-term partnership

Discuss your project with ASEM: equipment selection, installation, training and technical support.



Service illustration

Installation

Discuss the installation requirements and configuration with our technical team.

Learn more

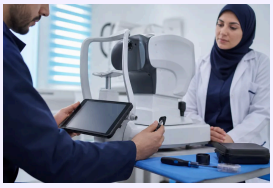


Service illustration

Training

Ask about the training and familiarisation available for your equipment.

Learn more



Service illustration

After-sales service

Contact ASEM for technical assistance and the support appropriate to your equipment.

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Service illustration

Expert advice

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+21320092281 · direction@asem-medical.com

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