HERON®

Noncontact Specular Microscope



EVOptica

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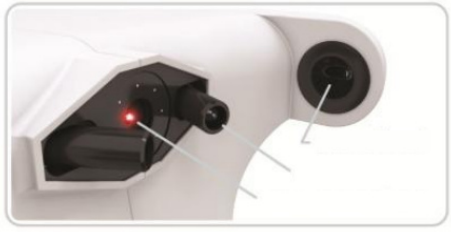
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HERON digitizes endothelial images with clear contrast and definition to support examination and analysis.

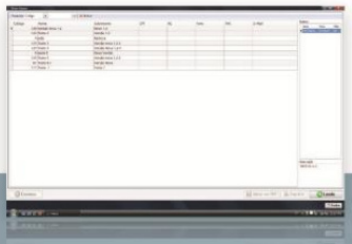
Principal Software and Hardware Features

- Simple, rapid, semiautomatic image capture using a USB foot pedal.
- Four-stage examination workflow with software guidance at every stage.
- Automatic processing of polymegathism, pleomorphism, cell count and cell boundary detection.
- All images in an archived report are stored for review and reprinting at any time.
- IP-based intranet networking for remote report viewing and printing. Reports can be exported as PDFs for internet sharing or email to other clinics.
- Patented image capture system using four high-resolution CCD cameras.
- Color reports containing statistical data and the endothelial image.



side camera; diagonal camera; central camera and LED.

The capture system uses four high-resolution cameras: one central camera for the pupil, one diagonal camera for the endothelium and two side cameras for focusing.



HERON software is straightforward to use. The original brochure specifies compatibility with Windows versions from XP through Windows 7. The opening screen provides the information needed to review an examination or start a new one.



The database supports multiple physicians, each with an individual login and password. Patients and examinations are automatically linked to the responsible physician, making searching and review easier.



Clinic information, including logos, is stored and can be printed on reports. The database supports more than one logo and clinic address, selected when printing, to simplify producing reports for other practices.

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Practical Value

HERON combines robust construction and automatic image processing with a four-camera CCD capture system, all connected by USB. Its slit illumination uses a long-life white ultrabright LED (Super LED), reducing the need for routine lamp replacement. The original brochure cited an approximate LED life of 35 years; this historical component-life statement is not a current warranty offer.



Reports present results clearly and comprehensively, including front and side images for assessing capture quality. Density, polymegathism and polymorphism appear in both text and graphs. The mean-density graph shows the range considered normal for the patient's age.

Reports can be exported to formats including PDF (Adobe Acrobat Reader), then attached to emails, printed locally or printed on a server-connected printer.

Support and Training

HERON was developed and manufactured in Brazil. Specialized technical training and after-sales support help users operate and maintain the system. Contact EVOptica for current support arrangements.

Software can be updated over the internet. The original brochure described free monthly upgrades; current upgrade availability and terms are available from EVOptica.





Using the USB foot pedal, the software captures a sequence of up to 100 images that can be reviewed individually. The user may select multiple subregions in each image. After image processing, all selected subregions contribute to the final report statistics, supporting analysis across multiple images rather than a single capture.

HERON allows the examiner to select the total cell count and measurement area without a fixed technical limit stated in the original brochure.

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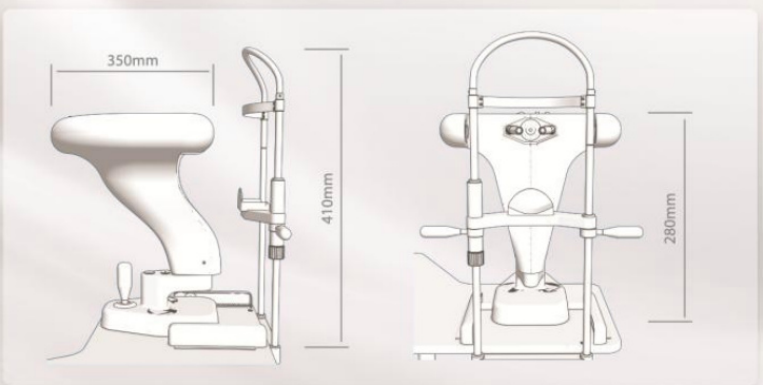
Technical Specifications

Specification	Value
Photographic coverage	0.5 × 0.5 mm
Capture system	Four high-resolution USB CCD cameras: two side cameras for focusing, one central camera for pupil alignment, and one endothelial camera
Magnification	150-200×
Working distance	35 mm
Image processing	Automatic
Database	Thousands of patients, virtually unlimited; backup to different media, including USB flash drives
Monitor - optional	15-inch color LCD
Computer - optional	Standard DELL, HP or similar; Dual Core processor or higher; Windows Vista or Windows 7
Voltage	Automatic dual voltage, 110-240 V
Power consumption	Normal 65 VA; maximum 190 VA
Dimensions - original table	W350 × D350 × H280; units not stated in table
Weight	6.0 kg

Development supported by FAPESP

FAPESP

Reseller: EVOptica.



Drawing dimensions: 350 mm horizontal dimension; 410 mm overall vertical dimension in the side view; 280 mm vertical dimension in the front view. The 410 mm drawing height differs from the H280 value in the original specifications table; both source measurements are retained.

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