VX 210

Corneal tomography and topography

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The latest generation, high-precision topographer and tomographer which also analyses the ocular surface.

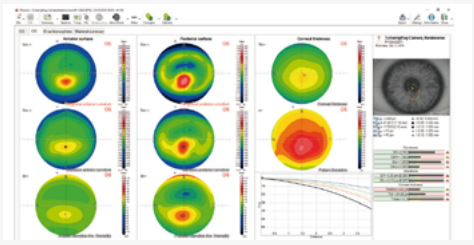
The VX 210 is an anterior segment analysis device that combines Scheimpflug tomography with Placido disk-based topography.
The combination of these two exams provides data about the pachymetry, elevations, and refraction power of different parts of the corneal surface over a diameter of 12 mm. To obtain all biometric measurements of the anterior chamber, the VX 210 can create up to 100 high-resolution slices. The measurement speed reduces the impact of eye movements, ensuring data precision and quality.

In addition to clinical diagnostics of the anterior segment, the VX 210 is used for refractive surgery and cataract surgery because it is equipped with a intra-ocular implant calculator.

Objective exams provide precise measurements of pupil diameter and its variations in scotopic, photopic, and mesopic conditions.

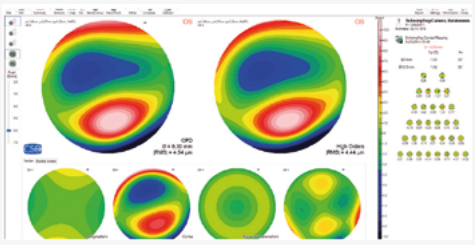
Moreover, the VX 210 is equipped with dedicated applications for analysing dry eyes such as meibography, NIBUT, and eye redness assessment.

Combined Placido disk and rotating Scheimpflug camera



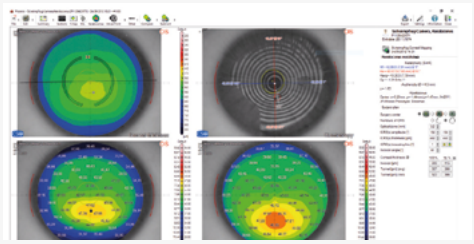
KERATOCONUS SCREENING

To supplement information about the curvature, elevation, and refraction power of the cornea, the keratoconus screening software provides important information about the anterior and posterior faces. This preoperative analysis is essential in refractive surgery in order to avoid post-operative complications such as corneal ectasia.



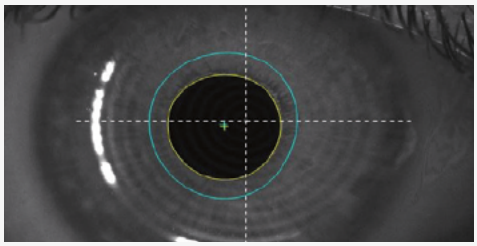
CORNEAL ABERROMETRY

Aberrometric analysis provides a complete view of corneal aberrations. It is possible to separate anterior and posterior aberrations according to different pupil diameters. The OPD/WTF maps and visual simulations (PSF, MTF, optotype) help to understand and explain the patients'
vision problems.



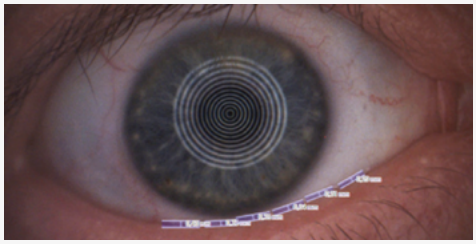
INTRASTROMAL RINGS

Based on the pachymetry and elevation information, the VX 210 allows the user to view and analyse the position of the intrastromal rings, which are useful when correcting certain types of keratoconus and refractive defects.



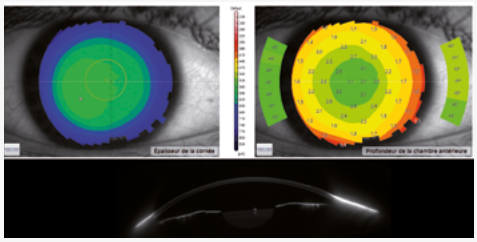
PUPILLOGRAPHY

The VX 210 includes software that measures the pupil and its variations. This measurement is done in scotopic, mesopic, and photopic conditions, as well as in dynamic mode.



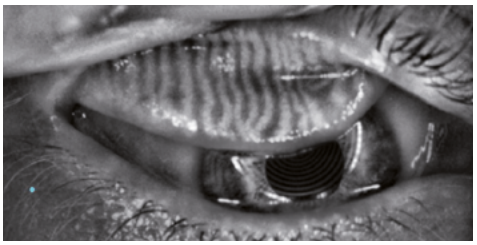
VIDEOKERATOSCOPY

The use of a white light source and blue lighting extends the device's functions to fitting rigid lenses or orthokeratology. It also enables the user to measure the tear meniscus as well as the degree of eye redness.



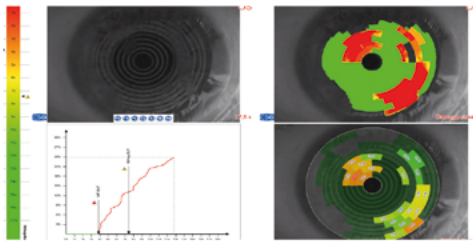
GLAUCOMA SCREENING

Using the VX 210, glaucoma specialists can measure the iridocorneal angles, the pachymetry, and the depth of the anterior chamber. These data are essential when screening for this pathology.



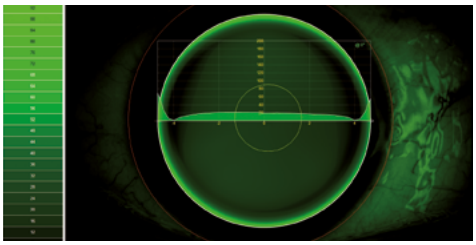
MEIBOGRAPHY

The VX 210 can be used to view the Meibomian glands
with infrared light and grade the images of the Meibomian structures
according to the degree of atrophy based on a reference scale included in the software.



TEAR FILM ANALYSIS

Advanced tear film analysis is available using the Placido disk technology. In particular, the system makes it possible to perform and analyse the NIBUT (Non Invasive Break-Up Time) completely automatically.

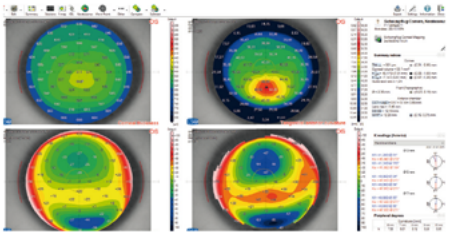


CONTACT LENSES

The VX 210 includes all of the essential elements needed for a successful contact lens fitting: tear film analysis, tear clearance simulation using an integrated manufacturer database in order to optimise the centring and positioning of the rigid lenses depending on the patient's corneal criteria as well as the video and images obtained using fluorescein dye.

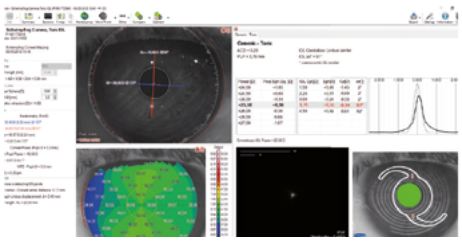
DRY EYES ANALYSIS

OSDI (Ocular Surface Disease Index) questionnaire, Tear Break-up Time measurement, Meibomian gland analysis, limbic and conjunctival hyperaemia, tear meniscus height: the VX 210 compiles all of this data to provide a global evaluation of the patient's clinical condition and help make a dry eyes diagnosis.



FEATURES OF THE VSX SOFTWARE

The VX 210 uses the VSX software, which saves patient data for advanced analysis at a later time and sharing between all Visionix devices.



IOL CALCULATOR (OPTIONAL)

The VX 210 includes a spherical and toric implant calculator, based on the Ray Tracing technique, taking into account the overall state of the cornea (post refractive surgery or not).

Technical specifications

Technical data	
Data transfer	USB 3.0
Power source	24 VDC External power supply Input: 100-240 VAC - 50/60 Hz - 0.9-05 A - Output: 24 VDC - 40 W
Electric cable	IEC C14 Socket
Dimensions (height x width x depth)	509 x 315 x 260 mm
Weight	7 Kg
Movement of the chin rest	70 mm ± 1 mm
Minimum height between the table and the chin rest	24 cm
Movement of the base (xyz)	105 x 110 x 30 mm
Working distance	74 mm

Light sources	
Placido disk	LED 400-700 nm
Scheimpflug camera	LED @475 nm without UV
Pupillography	LED @940 nm
Fluorescein light	LED @470 nm
Auxiliary light	LED 400-700 nm

Topography	
Placido rings	22
Measured points	From 42032 to 151232 for the anterior surface, from 36400 to 145600 for the posterior surface
Topographical coverage	12 mm
Range of dioptre measurements	from 1D to 100D
Precision of measurements	Class A under the standard ISO 19980-2012
Compatibility with standards	DICOM v3 (IHE integration profile, EYE CARE procedure)

Required configuration	
PC	CPU: I3 or higher (15 recommended) - Microprocessor: Intel - RAM: 4 GB or more (8 GB recommended)
Operating system	Windows 7, Windows 8, and Windows 10 (32/64 bit).
Graphics/video card	1 GB dedicated
Resolution	1280x960 or more - USB 3.0 port

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