DRY EYES

NEW

VISION ANALYSIS

DIAGNOSIS OF THE ANTERIOR CHAMBER

HIGH-END REFRACTION

VX 120+

Diagnostic

Take care of your client's visual health

MAKE A DIFFERENCE AND DEMONSTRATE YOUR SKILLS

VISIONIX

The Vision of the Future

NEW
SCREEN AND MONITOR DRY EYE SYNDROME (DES)

DRY EYE - POSSIBLE REASONS

- Decreased tearing : The lacrimal gland does not produce sufficient tears > Aqueous Deficient (ADDE) Dry Eye
- Excessive evaporation : Not enough Lipids "meibomian gland secretions" Evaporative (EDE) Dry Eye

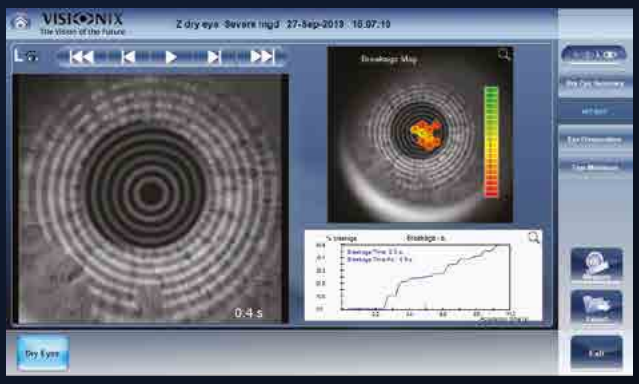
WITH THE VX120+ DETERMINE THE SPECIFIC DRY EYE SYNDROME USING 3 TYPES OF MEASUREMENTS

Non-invasive analysis of the tear film and evaluation of tear film Break-up time

A test that processes the movement of the Placido rings on the eye and gives the speed of tear film breakup between two blinks.

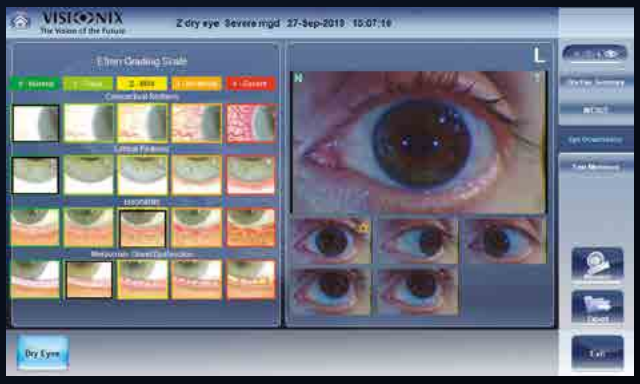
We present the information In 3 ways:

1. Image of the break time
2. Video of the Placido ring movement
3. Graph with a timeline versus the percentage of break up



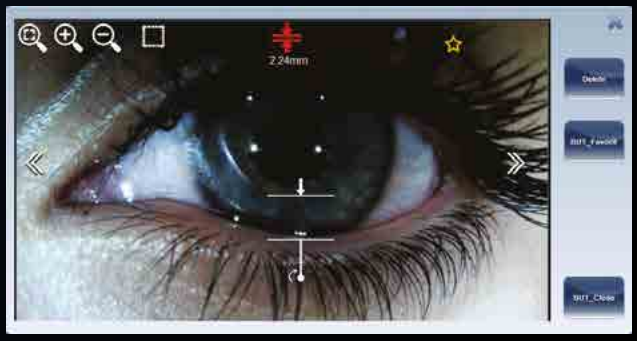
Displaying a colour image of Meibomian glands [1]

The colour camera allows you to make a photo gallery of the parts of the eye and lids, allowing focus on the meibomian glands aera. This allows the optician to follow-up and provide an explanation of the issues affecting the Eye to the customer.



Measurement of tear meniscus height

Using the manual zoom of the colour camera, you can measure the height of the tear meniscus to complete the test.



[1] IMPORTANT NOTE: These grading scales were derived from those developed by Professor Nathan Efron with permission. Adapted from Supplement to the book Contact Lens Practice, 2nd edition, by Nathan Efron, published by Butterworth-Heinemann, 2010, ISBN 978-0-7506-8869-7. This is offered as an educational tool that you may choose to use as part of your patient evaluations. These materials are not intended as, and do not constitute medical or optometric advice.

VX120+

UNIQUE DIAGNOSTIC DEVICE FOR VISUAL SCREENING, VISION ANALYSIS AND GLAUCOMA

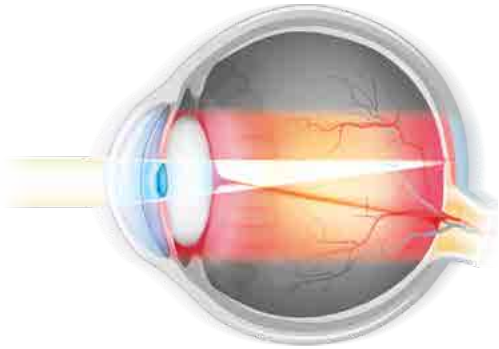
REFRACTION

Make a difference thanks to a VX120+, complete and fully automatic diagnostic screening device. Complete refraction, differentiate between day and night vision needs, glaucoma, cataract, keratoconus identification and monitoring , fitting of specialist contact lenses.

Main screen

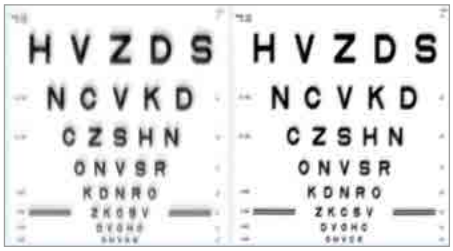
COMPLETE REFRACTION DIFFERENTIATE BETWEEN DAY AND NIGHT VISION NEEDS

> Objective day and night refraction measurements
> 1300 points points analysed for a 7-mm diameter pupil
> Objective refraction under mesopic and photopic conditions
> Measures lower-order and higher-order aberrations
> Access visual acuity and quality of vision on a pupil as small as 1.2 mm
> MTF curve

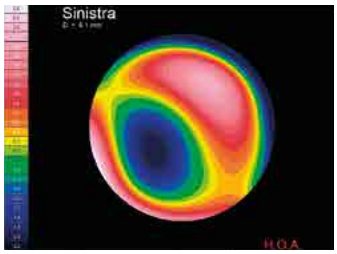


Technology

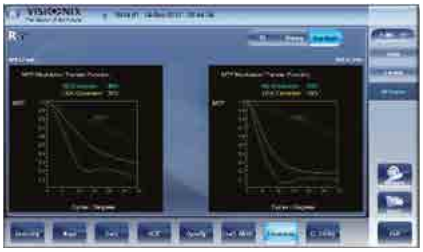
Shack-Hartmann wavefront analysis



Simulations of visual acuity



Shack-Hartmann wavefront maps measure lower-order and higher-order aberrations



Objective day and night refraction measurements
Analysis of aberrations with Zernike coefficients

ADDITIONAL CUSTOMER BENEFITS

- Fully automatic 3D and R/L eye alignments
- 7 types of automatic simultaneous measurements
- Operator independent measurements
- High reproducibility of measurements
- Automatic alignment and measurement
- High reliability for measurements
- Significant time savings
- Optimal comfort based on ergonomic design
- Quick detection of refraction, higher order aberrations, and warning indications for measurements outside of normal parameters
- Easily transfer patient measurements to the doctor for exam
- A refined and highly accurate refraction due to advanced technology and added features
- Delegation of tasks
- As part of examinations of refraction and detection of high-order aberrations, possible suspicion of pathologies

PATHOLOGIES

Main screen

Topography Maps : Keratoconus probability

SCREEN, EVALUATE AND MONITOR KERATOCONUS

Topography maps

> Axial, tangential elevation and refraction maps
> Keratoconus probability index (KPI)
> Keratoconus monitoring
> Internal astigmatism measurement
> Eccentricity and meridian tables
> Corneal aberrometry

Technology

Wavefront analysis with Shack-Hartmann technology , Placido rings, Scheimpflug imaging

Main screen

Anterior chamber analysis

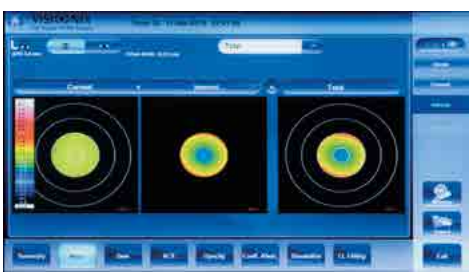
SCREEN, EVALUATE AND MONITOR GLAUCOMA RISK

> Anterior chamber analysis
> Automatic measurement of iridocorneal angles
> Measurement of anterior chamber volume
> Measurement of anterior chamber depth
> Measurement of IOP (intraocular pressure)
> Measurement of corneal thickness
> Corrected IOP as a function of corneal thickness

Technology

Scheimpflug imaging and non contact tonometer with soft air puff.

Visualization of crystalline opacities and LOCS scales



Analysis of wavefront aberrations, with the separation between corneal and lenticular/internal aberrations

SCREEN, EVALUATE AND MONITOR CATARACTS

> Visualization of crystalline opacities
> Analysis of wavefront aberrations, with the ability to separate corneal and lenticular/internal aberrations
> Internal astigmatism measurement
> Kappa angle for IOL centering
> Z.4.0 value for aspheric implant
> Lens opacity classification (LOCS II and III scales)

Technology

Scheimpflug imaging , Retroillumination, Shack-Hartmann, Placido rings

VX120+
READY FOR COMMUNICATION

The VX 120 + can be set up in a network to integrate with your patient management software and provide a variety of communication options to optimize your work flow.

> Review results from any supported device (tablet, smartphone, etc.)
> Print directly from your local or network printer
> Customize your reports
> Synchronize data, graphs, and maps for any examination
> Communication enabled with other instruments

VX 120+ Diagnostic

Height	570 mm
Width	312 mm
Depth	530 mm
Weight	25 kg
Voltage	100-240 VAC, 50/60 Hz, 300 W
Ref.	30200000-05

TECHNICAL SPECIFICATIONS

GENERAL

Alignment	XYZ automatic
Display	10.1" (1 024 x 600) TFT screen Multi-touch screen
Observation area	ø 14 mm
Medical device directive	EC MDD 93/42/EC modified by directive 2007/47/EC
Output	RS232 / USB / VGA / LAN

POWER MAPPING AND REFRACTION

Spherical power range	-20D to +20D
Cylinder power range	0D to + 8D
Axis	0 to 180°
Measuring area	Min. ø 2 mm - Max. 7 mm (3 zones)
Number of measuring points	1,300 points
Acquisition time	0.2 sec
Method	Shack-Hartmann

PACHYMETRY, IC (IRIDOCORNEAL) ANGLE AND PUPILLOMETRY

Method	Continuous horizontal scan with the Scheimpflug camera
Pachymeter measuring range	150-1300 µm
Pachymeter resolution	+/- 10 microns
IC angle measuring range	0°-60°
IC resolution	0.1°
Pupil illumination	Blue light 455 nm

RETROILLUMINATION

CORNEAL TOPOGRAPHY BY SPECULAR REFLECTION

Number of rings	24
Number of measuring points	6,144
Number of points analyzed	More than 100,000
Diameter of covered corneal area at 43D	From 0.75 mm to more than 10 mm
Measurement range	From 37.5 D to 56 D
Repeatability	0.02 D
Method	Placido rings

TONOMETER

Measurement range	7 mmHg to 44 mmHg

	VISIONIX						
	VX100	VX110	VX118	VX220	VX120+	VX120+	VX130+
AR-K based WF							
AR-K	✓	✓	✓	✗	✓	✓	✓
Occular Aberro.	✗	✓	✓	✓	✓	✓	✓
Retro	✓	✓	✓	✓	✓	✓	✓
Corneal Topograph	✓	✓	✓	✓	✓	✓	✓
Non Contact Tonometer	✗	✗	✗	✓	✓	✓	✓
Scheimpflug Camera							
Pachymetry	✗	✗	✓	✓	✓	✓	✓
Full Eye Tracking	✓	✓	✓	✓	✓	✓	✓
Remote Acces	✓	✓	✓	✓	✓	✓	✓
Offline/Webservice	✓	✓	✓	✓	✓	✓	✓
Colour camera	✗	✗	✗	✗	✗	✓	✗

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