Eye Refract

Computer-assisted dynamic refraction

VISIONIX

INNOVATION TO UNLOCK YOUR POTENTIAL

Eye Refract: reimagine refraction

The 2nd generation Eye Refract, manufactured by Visionix, utilizes a unique and innovative technology which performs binocular refraction powered by computer-generated algorithms. With over 5.5 million refractions to date and accuracy backed by published ARVO studies, it is a device you can confidently rely on.

Powered by Shack-Hartmann wavefront technology, the Eye Refract performs binocular refraction through perpetual, iterative, and adaptive cycle testing. During each automated measurement cycle, the patient's physiological reaction, such as accommodation, is analyzed simultaneously using a variety of lenses.

A much simpler refraction

STANDARD REFRACTION

Step 1: Objective refraction

ARK based objective refraction comes with limitations:

- monocular measurement
- no accommodation control
- restricted field

Step 2: Subjective refraction

- Stressful for the patient
- Time consuming
- Operator and patient dependant

10

Average processing time: 10 minutes

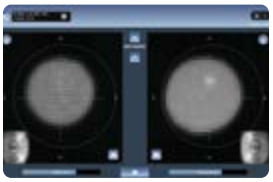
EYE REFRACT

Dynamic refraction

Wavefront based refraction offers:

- binocularity during the entire process
- physiological reaction monitoring
- openfield condition
- accommodation control system
- auto-adjusting lenses

Physiological spontaneous reaction



Binocular aberrometric measurement

Translated into lenses

Final prescription

The operator finds the most comfortable prescription through a few additional comparative questions.

4

Average processing time: 4 minutes

The reimagined refraction process

Eye Refract, manufactured by Visionix, is the only binocular, wavefront, computer-assisted device that offers physiological refraction and determines the most reliable prescription for your patients.

PHYSIOLOGICAL REFRACTION

The only device with live measurements and automatic lenses rotation.

Physiological refraction is an adaptive process that measures the patient's physiological response binocularly and simultaneously until a stable measurement is reached.

QUICK PRO ALGORITHM

Following physiological refraction, the Quick Pro algorithm enables the system to find the most comfortable prescription for the patient.

The Eye Refract algorithm was designed by:

- Analyzing millions of subjective refraction cases
- Comparing results from the Eye Refract with standard subjective refractions
- Involving distinguished professors and doctors of optometry

Flexibly manage the refraction process

REMOTE-READY REFRACTION

In addition to offering the ability to delegate data collection, the Eye Refract can be operated remotely to allow providers flexibility and increase practice efficiency.

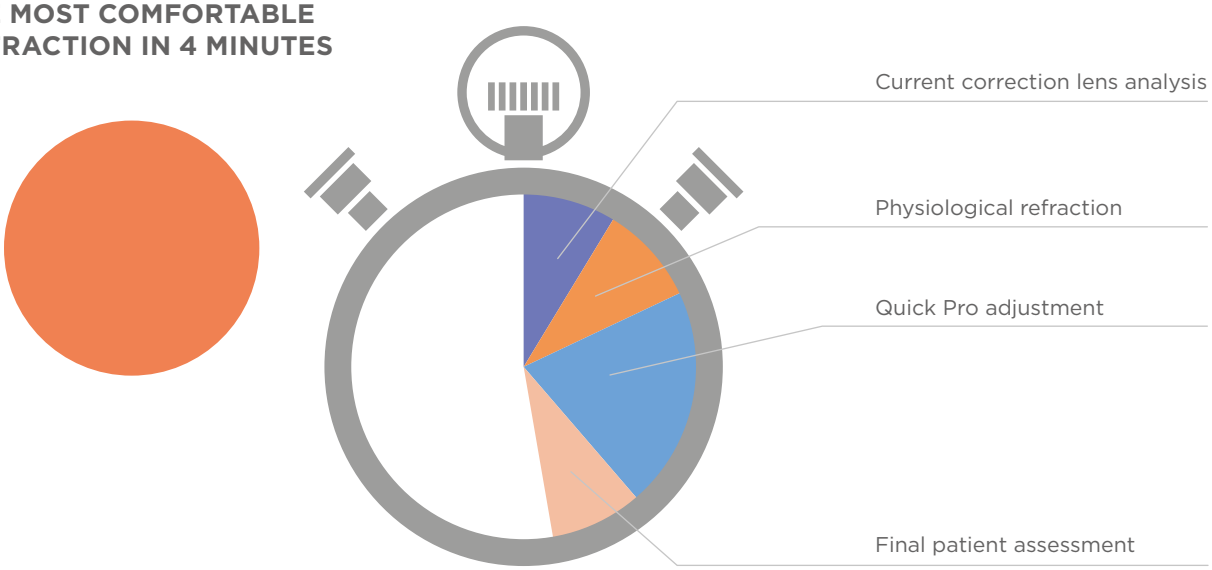
SOCIAL DISTANCING

Whether it's six feet away, next door, or from a different office, the remote-ready tablet ensures comfort and safety for both patients and staff. .

Expedite your process

Reduce examination time without sacrificing accurate results*.

THE MOST COMFORTABLE REFRACTION IN 4 MINUTES



ALL-IN-ONE DEVICE

The Eye Refract system combines an automated wavefront lens analyzer, binocular wavefront ARK, and digital phoropter in one device. Patients no longer need to move from one device to another, making them more comfortable and saving valuable time.

How would you maximize the time you save?

* Comparison Between Aberrometry-Based Binocular Refraction and Subjective Refraction Gonzalo Carracedo 1,2, Carlos Carpena-Torres 1 , Maria Serramito 1 , Laura Batres-Valderas 1

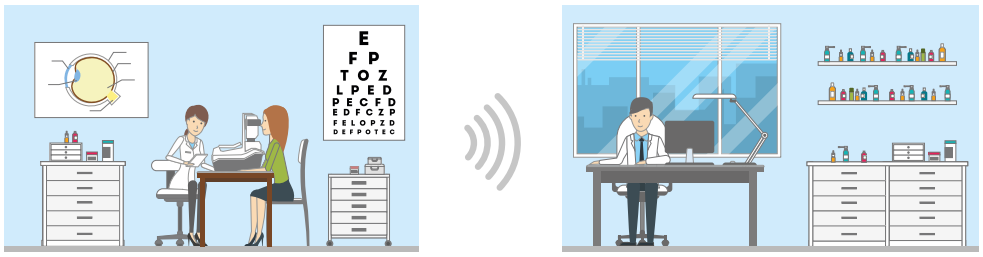
Delegate data collection with confidence

The Eye Refract system easily guides staff through the refraction process.

Objective results are based on the patient's physiological reaction, which requires no operator interpretation, making them easily repeatable. Quick Pro steps guide the operator through subjective refinement to ensure each operator delivers consistent results.

The final prescription data is sent to the eye care provider for confirmation and sign-off.

FULL DELEGATION

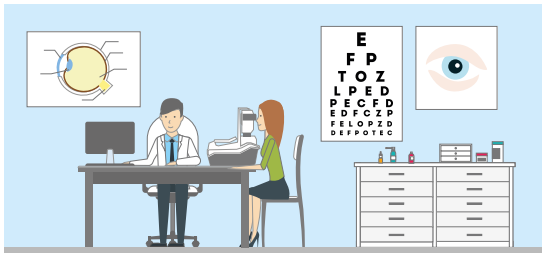


The technician collects the refraction data with Eye Refract and sends the data summary to the provider for review.

PARTIAL DELEGATION

The technician collects the refraction data with Eye Refract, then the doctor reviews the data summary and performs additional testing if necessary.

COMPLETE MANAGEMENT



Complete management of the eye exam by a single eye care professional results in time savings and efficiency.

Improve the patient experience

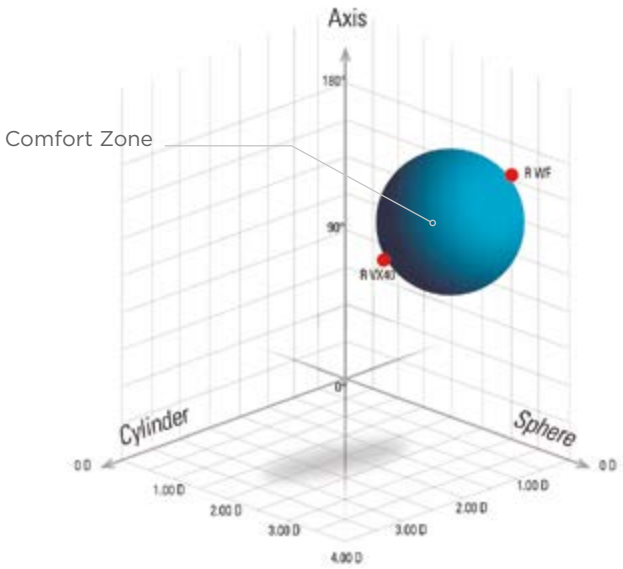
The only device to automatically provide patients with a smooth transition from blurry to clear vision in seconds. Once the physiological refraction is measured, Eye Refract automatically and quickly guides the operator through refinement with the Quick Pro algorithm. The quick and easy experience increases patient confidence in your results.

VISUALIZE NATURALLY

By measuring both eyes simultaneously, Eye Refract integrates the way most patients use their eyes innately. The lenses automatically adjust to the patient's visual reaction, ensuring the physiological refraction is reached very quickly.

ELIMINATE STRESS

Eye Refract does the work of multiple devices, eliminating patient stress of moving to different instruments. The binocular, open-field system increases patient comfort and confidence in the final result.



REACH THE COMFORT ZONE

Based on the results of the physiological refraction, the patient's most comfortable prescription is determined using only a few questions. Just 3 to 4 iterations of "better one" and "better two" Quick Pro guided refinements are often enough.

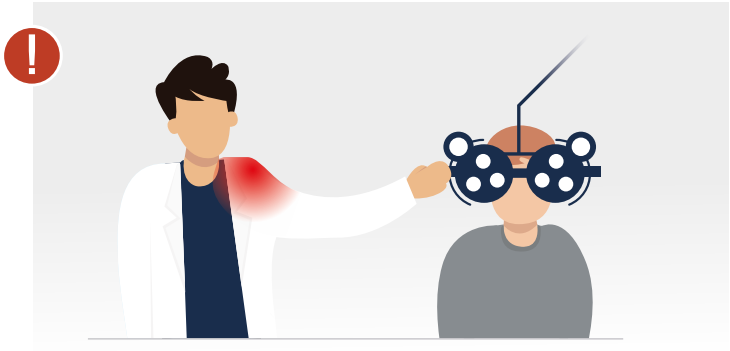
A more efficient experience for you

Compared to conventional retinoscopy and trial frames, Eye Refract is more comfortable for the operator and the patient.

COMFORTABLE FOR THE PROFESSIONAL

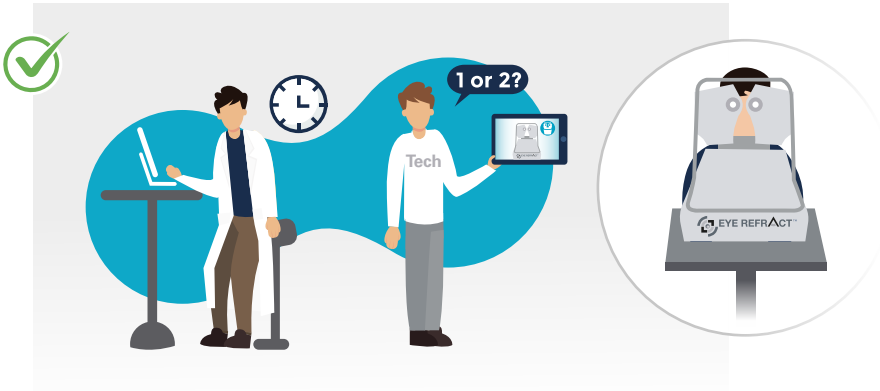
The ergonomic, intuitive, and responsive user interface allows eye care professionals to perform refractions more smoothly.

- The guided process is easy to use, includes instructions at each step, automatic lens adjustment, and alerts the user of possible errors
- Customize at any point using a wide range of complementary tests



AN ERGONOMIC REFRACTION SOLUTION

Manual phoropters force eye care professionals to adopt unnatural postures to manipulate the device. The repetition can cause painful strain to the neck and shoulders.



DIGITAL REFRACTION BENEFITS

Switching to digital refraction can reduce the strain on the neck and shoulders; and eliminates the need to reach forward and above the midline while changing lenses

Configuration VX 25

Eye Refract	
Ref.	30230000-00
Output	• RS-232 / USB2.0 / VGA / LAN • Embedded bluetooth / Wifi
Hardware	Tablet ..... Android Chinrest ..... Electrical Near Vision Target ..... 250-700mm, Mini tablet 7“ Head ..... Autofocus, autocentering
Range	Sph ..... -30.00D to +27.25D Sph step ..... 0.125 / 0.25D Cyl ..... -8.00 to +8.00D Cyl step ..... 0.25 / 0.50 / 1D Optical axis ..... 0 to 180° Axis step ..... 1° / 5° / 10° / 45° Prism ..... 0 to 20D Prism steps ..... 0.25D Kerato 6mm-9mm (37.5D-56D)
Communication	Wi Fi
	Shack Hartmann Camera Each of the 1050 points = one measure
Table vx 40-ER vx 25-ER	8160-0025-01

vx 40	
Ref.	3014-0000-00
Measurable range	Number of analyzed points: .... Up to 1350 Sphere power: ..... -15 ~ +10D (step 0.01, 0.06, 0.125, 0.25D) Cylinder power: ..... 0 ~ 10D (step 0.01, 0.06, 0.125, 0.25D) Cylinder axis: ..... 0 ~ 180° (step 1°) Addition power: ..... 0 ~ 33.5D (step 0.01, 0.06, 0.125, 0.25D) Prism power: ..... 0 ~ 310 Δ (step 0.01 Δ) PD measurement: ..... Mono / Bino Cylinder: ..... -, +
General	Printer ..... Internal Screen ..... LCD/16M colors, 7” Light source ..... LED - 730nm Working conditions ..... 50 to 104° F Data output ..... RS-232, Bluetooth
Console	8160-8025-00

vx 25	
Ref.	8225-0000-00
Measurable range	• Screen type ..... LCD 1920x1200 pixels • Size ..... 7“ LCD (color) High resolution Monitor • Maximum contrast ..... 1000/1 • Luminance ..... 250 cd/m² • Reading distance ..... 16.40 ft • Visual acuity range ..... 0.1 to 2.0 - 20/500 to 20/10 • Power supply ..... 100-240V CA - 50/60Hz - 1.3A • Screen power supply ..... 12V DC • Consumption ..... Max 60W • Protection against electric shock ..... Class 1 • IP Classification ..... IPXO • Size ..... 12.40 in (length) x 25.98 in (height) x 12.6 in (width) • Weight ..... 61.73lbs • Connections with phoroptors ..... RS232-C or IR or wifi • Sound output ..... Sound output jack 3.5mm

SPACE SAVING CONFIGURATION WITH VX 25

This screen has been designed for optimal results thanks to its ergonomic design, streamlined style, and large number of tests included.

The VX 25 includes the same functions as the VX 22 but within a smaller footprint.

Projection distance: 2 feet 7.4 inches
Footprint less than 10.5 square feet

Working distance: 2 feet 7.4 inches

Configuration VX 22

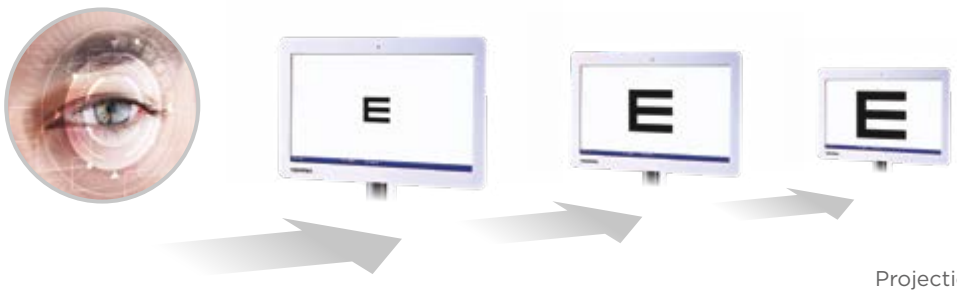
Eye Refract	
Ref.	30230000-00
Output	• RS-232 / USB2.0 / VGA / LAN • Embedded bluetooth / Wifi
Hardware	Tablet ..... Android Chinrest ..... Electrical Near Vision Target ..... Eye Refract, Mini tablet 7“ Head ..... Autofocus, autocentering
Range	Sph ..... -30.00D to +27.25D Sph step ..... 0.125 / 0.25D Cyl ..... -8.00 to +8.00D Cyl step ..... 0.25 / 0.50 / 1D Optical axis ..... 0 to 180° Axis step ..... 1° / 5° / 10° / 45° Prism ..... 0 to 20D Prism step ..... 0.25D Kerato 6mm-9mm (37.5D-56D)
Communication	
	Shack Hartmann Camera Each of the 1050 points = one measure
Table vx 40-ER vx 25-ER	8160-0025-01

vx 40	
Ref.	3014-0000-00
Measurable range	Number of analyzed points: .... Up to 1350 Sphere power: ..... -15 ~ +10D (step 0.01, 0.06, 0.125, 0.25D) Cylinder power: ..... 0 ~ 10D (step 0.01, 0.06, 0.125, 0.25D) Cylinder axis: ..... 0 ~ 180° (step 1°) Addition power: ..... 0 ~ 33.5D (step 0.01, 0.06, 0.125, 0.25D) Prism power: ..... 0 ~ 310 Δ (step 0.01 Δ) PD measurement: ..... Mono / Bino Cylinder: ..... -, +
General	Printer ..... Internal Screen ..... LCD/16M colours, 7” Light source ..... LED - 730nm Working conditions ..... 10 to 40°C Data output ..... RS-232, Bluetooth
Console	• 8160-8025-00

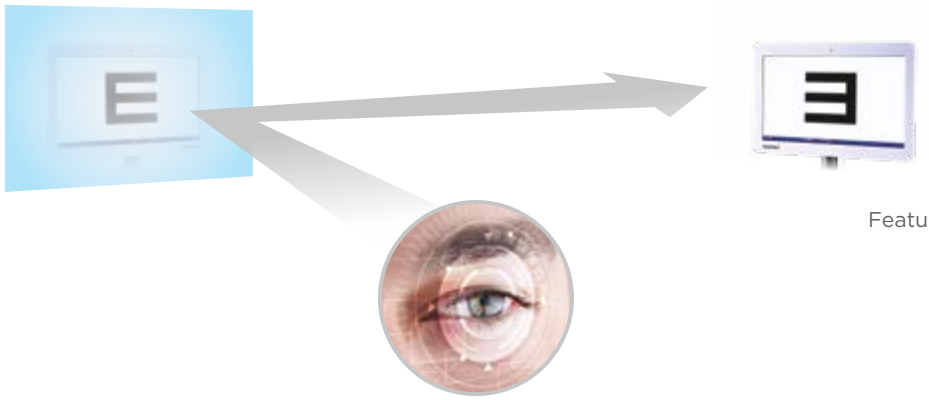
vx 22 Linear polarization LP	
Ref.	8225-0000-00
Measurable range	• Screen size ..... 23.6 inch • Resolution ..... 1920x1080 • Luminance ..... 250 Cd/m2 • Reading distance ..... 2 to 8 meters (78 to 315 inch) • Visual acuity ..... 0.1 to 2.0 • Power supply ..... 100-240V CA - 50/60Hz - 1.3A • Built-in speaker • Interface ..... RS-232, IR, 4 Usb, VGA, Hdmi, Lan • Built-in LED for external fixation point • Possible media support for advertising purposes : ASF, WMV, WMA, OGG, MOV, RM, RA, RAM, MP4, MPEG, AVI, VOB, MPG
Stands and Mounts	• 7191013 Floor stand (Optional) • 7610022 Table stand (Optional) • 8230-5041-07 VESA wall mount (included)
Accessories	• Batteries for remote control dongle • USB stick • Radio remote control • Power supply cable and transformer • Matching tests for pediatrics • Red / green frame • Circular polarized frame

STANDARD SPACE CONFIGURATION WITH VX 22 CHART DISPLAY

This device features a LED display to test binocular and stereoscopic vision, allowing a perfect dissociation of the right eye and left eye. VX 22 streamlines testing, allowing for quick examination of monocular, binocular, and stereoscopic vision in one process.



Projection distance 6.5 to 26.25 feet



Features mirror mode

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