

patients' required refractive correction. The machine produces an initial wavefront estimate of the patient's refraction, and enables the practitioner to complete the prescription through a traditional subjective test.



A new way forward

AI POWERED
PHYSIOLOGICAL REFRACTION

VISIONIX
The Vision of the Future

Eye Refract™

AI powered physiological refraction

Visionix® Eye Refract™, manufactured by Luneau Technology group, is the only AI powered device that offers « physiological refraction » to establish the most comfortable prescription for your patients.



PHYSIOLOGICAL REFRACTION

The unique device with live measurements and live lens rotation.

Physiological refraction is an adaptive process that takes the patient's physiological reaction into account until a stable measurement is reached. Utilizing Visionix® pioneered wavefront technology, the measure is done simultaneously on both eyes, in the same way the patient naturally uses them binocularly, providing accurate results.



ARTIFICIAL INTELLIGENCE

In addition to the physiological refraction process which is AI powered, Quick Pro algorithm in Eye Refract™ (ER) simulates the steps an experienced optometrist would take to quickly find a comfortable prescription. Eye Refract™ results were optimised by:

- Analyzing hundreds of cases of subjective refractions
- Comparing results from ER versus classical subjective refraction
- Involving top Professors in Optometry & multiple experienced Optometrists

Wireless remote control & Tele-examination

Our tablet-driven Visionix® solutions allow eye care professionals to perform exams at a safe distance - 2 meters away, next door or even from a different office.



WIRELESS REMOTE CONTROL

No matter the workplace, it is important to ensure 2 meters between the refraction station and the professional.

Maintaining social distancing during refraction is vital to ensure comfort and health.

Tablet-driven refraction helps practices meet social distancing expectations in the "new normal".



TELE-REFRACTION

Visionix® Eye Refract™ can be easily operated remotely. You can perform the refraction and have a live discussion with your patients from any remote location with internet access.

Configurations

Our configurations are adapted to your refraction habits and work space.



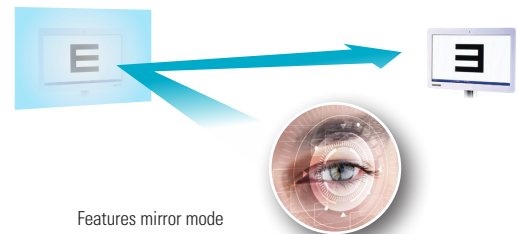
Standard space configuration with Visionix® VX22 LP chart display

This device features a linear polarisation to test binocular and stereoscopic vision allowing a perfect dissociation of the right eye and left eye.

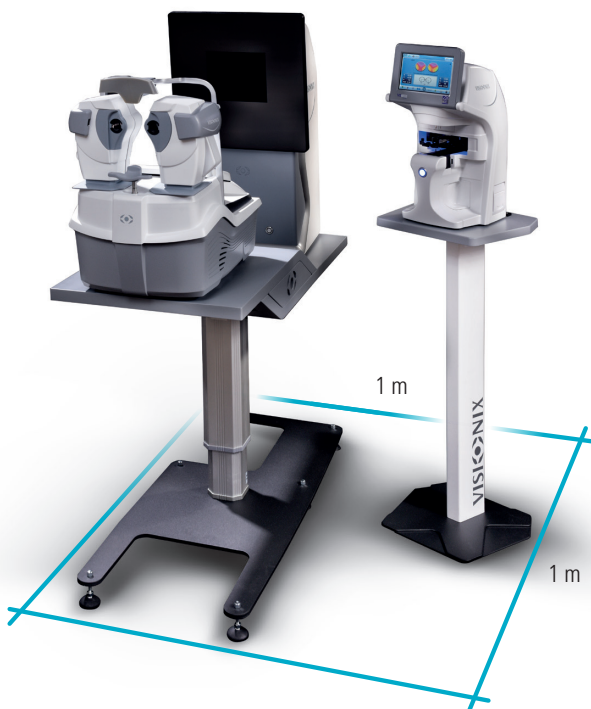
This offers the ability to proceed with many other tests with optimal quality for the examination of bi-ocular, binocular, and stereoscopic vision.



Projection distance 2 to 8 meters.



Features mirror mode



Projection distance: 0.8 meters.
Footprint 1 m²

Space saving configuration with Visionix® VX25

This screen has been designed for optimal results in the pre-screening area thanks to its ergonomic design, streamlined style, and the large number of tests included. Same functions as the VX22 but within a smaller footprint.



Working distance: 0.8 meters

Does Eye Refract™ perform an objective or subjective refraction? Neither. It is much more simple.

Today refraction splits in 2 steps: objective and subjective



Objective refraction

Quick and automatic measurement, but it is not final as it is often too far from comfortable vision.



Subjective refraction

A more complex examination involving the patient to provide the most clear and comfortable prescription.

- Stressful for the patient (blurry situation, what is the « right » answer?)
- Frustrating for the professional (time consuming, need to make a decision)
- Operator dependant

Conclusion

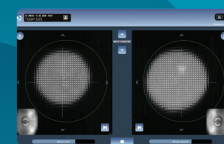
Average processing time 10 minutes



With Eye Refract™: dynamic physiological refraction



Physiological spontaneous reaction



Binocular aberrometric measurement

Artificial Intelligence driven analysis



Translated into lenses

Eye Refract™ is the only AI powered device that performs **physiological refraction**, in an accurate, fast & repeatable way.



- 1 or 2 questions are enough to reach a comfortable refraction
- Comfortable for both the patient and the eye care professional
- Maximise staff delegation
- Practice differentiation
- Wireless remote control (safe distancing) & Tele-examination (telehealth from other location)

Conclusion

Average processing time : 4 minutes





Ref.	30230000-00
Output	<ul style="list-style-type: none">• 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° Prisms..... 0 to 20D Prims steps..... 0.25D Kerato 6mm-9mm (37.5D-56D)
Communication	 
Shack Hartmann Camera Each of the 1050 points = one measure	
Table VX40-ER VX25-ER	8160-0025-00

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 power0 ~ 10D (step 0.01, 0.06, 0.125, 0.25D) Cylinder axis.....0 ~ 180° (step 1°) Addition power0 ~ ±3.5D (step 0.01, 0.06, 0.125, 0.25D) Prism power0 ~ ±10 Δ (step 0.01 Δ) PD measurement.....Mono / Bino Cylinder-, +
General	Printer.....Internal ScreenLCD/16M colours, 7" Light source.....LED - 730nm Working conditions10 to 40°C Data outputRS-232, Bluetooth
Console	<ul style="list-style-type: none">• 8160-8025-00



Ref.	8225-0000-00
Measurable range	<ul style="list-style-type: none">• Screen typeLCD 1920x1200 pixels• Size7" LCD (color) High resolution Monitor• Maximum contrast1000/1• Luminance250 cd/m²• Reading distance.....5 meters• Visual acuity range.....0.1 to 2.0 20/500 to 20/10• VX25 power supply100-240V CA 50/60Hz - 1.3A• Screen power supply.....12V DC• ConsumptionMax 60W• Protection against electric shocks.....Class 1• IP ClassificationIPX0• Size.....315mm (length) x 660mm (height) x 320mm (width)• Weight.....28kg• Connections with phoropters.....RS232-C or IR or wifi• Sound output.....Sound output jack 3.5mm



Linear polarisation LP

Ref.	8241-0022-40
Measurable range	<ul style="list-style-type: none">• Screen size.....23.6 inch• Resolution1920x1080• Luminance250 Cd/m²• Reading distance.....2 to 8 meters (78 to 315 inch)• Visual acuity0.1 to 2.0• Power supply.....100-240V CA - 50/60Hz - 1.3A• Built-in speaker• InterfaceRS-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	<ul style="list-style-type: none">• 7191013 Floor stand (Optional)• 7610022 Table stand (Optional)• 8230-5041-07 VESA wall mount (included)
Accessories	<ul style="list-style-type: none">• Batteries for remote control dongle• USB stick• Radio remote control• Power supply cable and transformer• Matching tests for child tests• Red / green frame• Circular polarised frame

ABOUT US

The Luneau Technology group, bringing together the Visionix®, Briot® and Weco® brands, is a major force in the market, with a range of equipment to cover all the eye care professionals' requirements: Refraction and ophthalmic diagnosis, lens inspection in industrial production and lens cutting in the optician's lab.

Our aim has always been to provide you with the latest technologies to permit quicker screening for visual disorders and provide a better quality of life, with ever more effective equipment. Our aim is to provide innovative and increasingly efficient technologies that allow you to rapidly screen for visual disorders, providing your patients with a better quality of life



LUNEAU TECHNOLOGY OPERATIONS

2 Rue Roger Bonnet - 27340 PONT DE L'ARCHE - FRANCE - Tel. + 33 232 989 132 - Fax + 33 235 020 294
contact@luneautech.com - www.luneautech.com