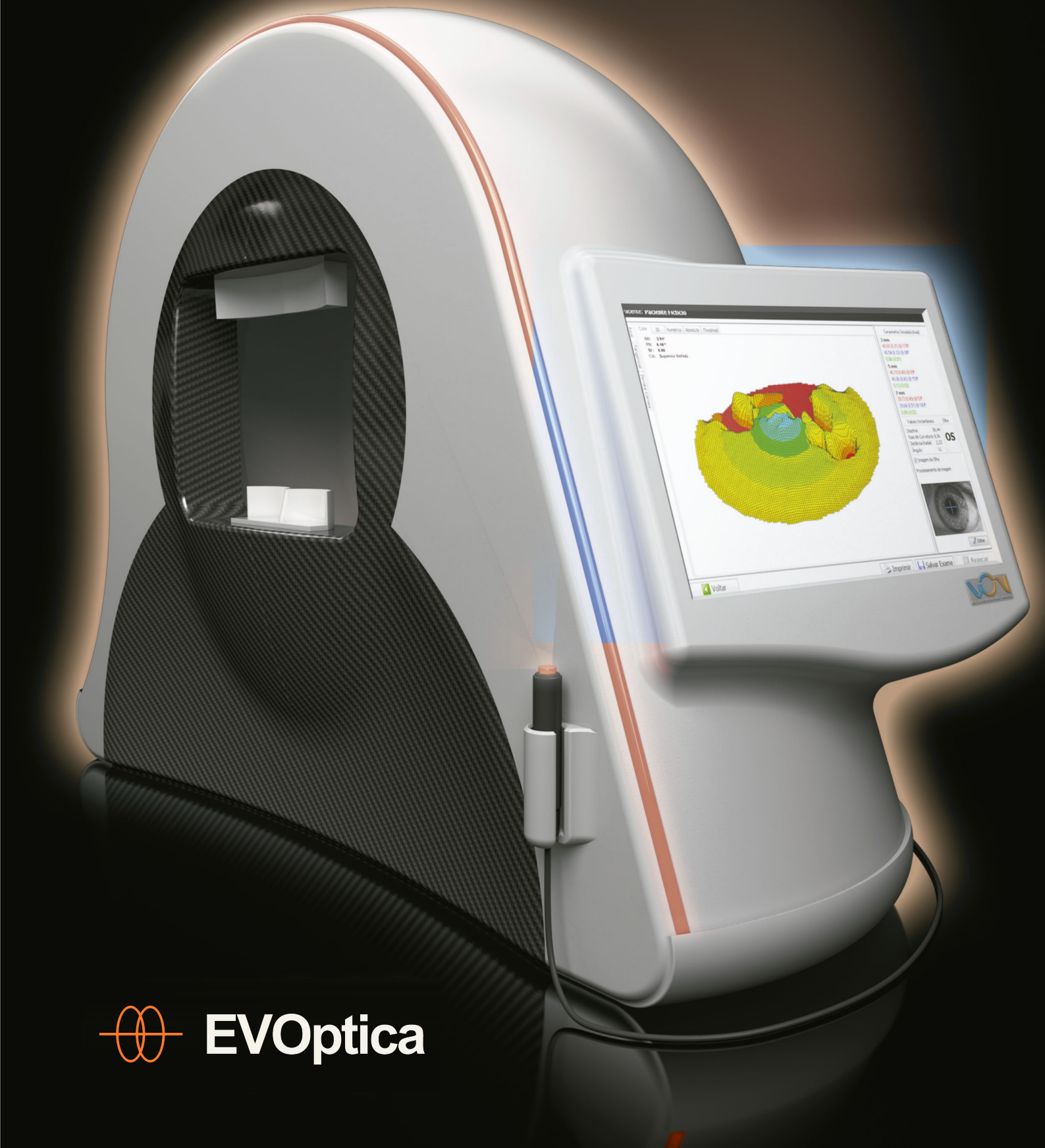
VON®

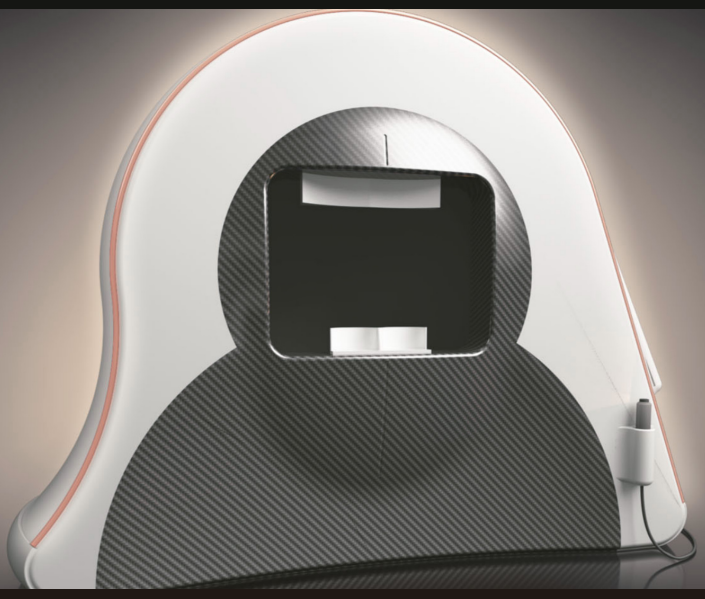
The future of perimetry is here.



EVOptica

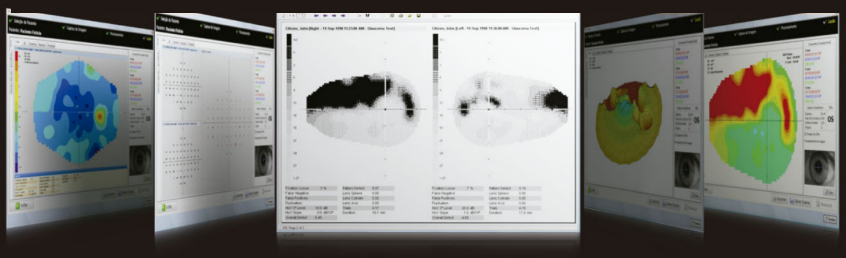
VON

High-Precision Perimetry



VON was designed, developed and manufactured in Brazil using advanced engineering tools. The original development team cited the use of software also used in aircraft design at Embraer, optical design at Zeiss, and application development for Skype and Windows. These names are examples only and do not imply affiliation. The statistical database described in the source is based on the Brazilian population.

Touchscreen Technology



VON software offers examination strategies compatible with Humphrey conventions, including full threshold, screening, 2-Zone and 3-Zone. The hill of vision can be displayed in several ways, from grayscale images to three-dimensional views and color maps. Printing supports multiple layouts, including a dot-matrix format compatible with Humphrey reports, plus one-click email and PDF export.

Principal Hardware and Software Features

- High point density with more than 200 LEDs supports detailed visual field measurement.
- Fixation monitoring (eye tracker) with an infrared camera, live pupil-centroid processing and a graph of fixation over time.
- Standard examination types and strategies for central and peripheral visual field analysis: 2 Zone, 3 Zone, Quantify Defect, Screening, Neurological, Fast Threshold, Fastcan and Binocular.
- Customized report printing.
- Detailed statistical analysis, comparison of results, retrospective analysis and global indices including MD, PSD and GHT. Statistical indices use the Brazilian population database described in the source.
- Software controls the full illumination system, LEDs and examination process, facilitating upgrades.
- PIC-microprocessor hardware on one electronic board, produced in Brazil and designed for accessible maintenance.
- The computer, high-resolution color touchscreen and motherboard are built into the instrument for plug-and-play operation: connect the power supply and start.



VON's patient-response joystick connects by USB. Its illuminated button is easier for the patient to see and lets the operator check that the instrument is powered and functioning. USB power eliminates the need for additional power wires or computer ports.



The original VON configuration included a high-performance Intel-based computer, a genuine Windows 7 operating system and a motherboard embedded in the housing. Software was factory-installed for plug-and-play operation: connect to a power outlet and begin.

Users can add optional external accessories of their choice, including a keyboard, mouse and printer, and use the wireless capability. The supplied wireless antenna enables internet access, maintenance, upgrades and remote technical assistance by the software support team.

The future of perimetry is here.

VON has a modern, ergonomic design with a white finish and a carbon-fiber pattern on the patient-contact area. The finish is designed for easy cleaning and to resist visible aging.

The built-in high-resolution touchscreen supports operation, examination viewing and internet access, and includes an onscreen keyboard. A conventional keyboard and mouse are optional.



A lighting system around VON's housing uses Super LEDs and optical fiber to provide gentle room illumination while indicating that the system is operating. At examination completion the light switches off automatically, signaling to the physician and operator, such as a technologist or receptionist, that testing has ended. Because some visual field tests take longer, this completion indicator can help busy clinics manage physician and patient time.

Technical Specifications

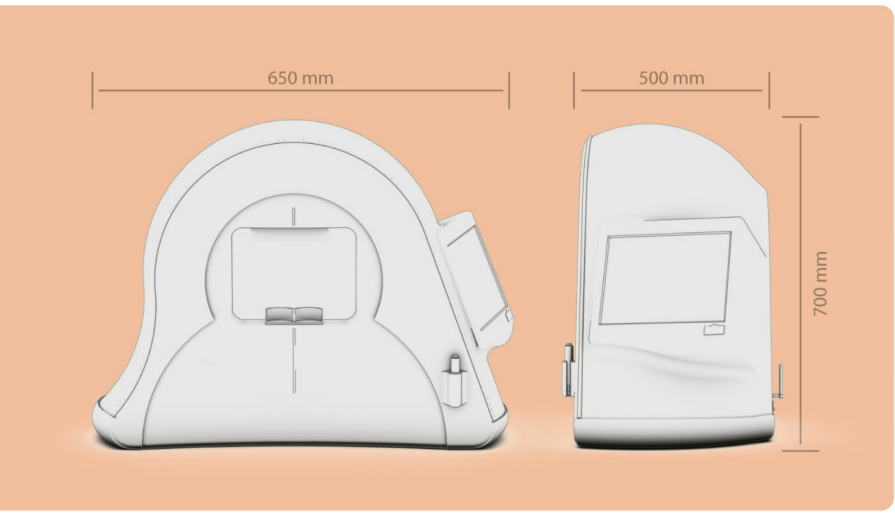
Specification	Value
Total visual field angle	100°
Full test, 50°	160 points
Central test, 30°	120 points
Glaucoma test, 22°/50°	100 points
Central test, 22°	96 points
Wide test, 22°/30°	128 points
Peripheral test, 30° to 50°	72 points
Macula test, 10°	48 points
Driving test, 50°/80°	196 points
Exposure time	Adjustable, 0.1-10 s
Response time	Adjustable, 0.1-10 s
Inter-test delay	Adjustable, 0.1-10 s
Stimulus source	Green rear-projection LEDs
Stimulus size	Goldmann III standard
Stimulus intensity	0.03-1000 asb
External/ambient lighting	Acrylic and ultrabright blue LED system indicates on/off status and provides aqua-blue room illumination during examination
Background illumination	10 asb; parenthetical value printed as 3.2 cm/m² in the source, unit unclear. Automatic level control; ultrabright LED and acrylic system
Fixation control method	Blind-spot method and high-resolution monochrome CCD camera
Fixation monitor	Yellow LED
Trial lens diameter	38 mm

Operating Conditions

Specification	Value
Ambient temperature	+10°C to +40°C
Atmospheric pressure	700-1,060 hPa
Transport and storage ambient temperature	-10°C to +40°C
Relative humidity	30-85%
Transport/storage atmospheric pressure - source unclear	Printed as 500 to 1.60 hPa; malformed range retained without correction
ISM classification	1 B
Historical conformity reference	CE mark 1434, as printed in the original instrument brochure; not a statement of current EVOptica U.S. clearance

Other Technical Data

Specification	Value
Dimensions, H × W × D	700 × 650 × 500 mm
Weight	14 kg
Supply voltage/frequency	110-120 V AC / 220-240 V AC / 50-60 Hz
Power consumption	Maximum 30 W



Drawing dimensions: 650 mm width, 500 mm depth and 700 mm height.

Third-party trademarks belong to their respective manufacturers, have no direct relationship with EVOptica products and are cited only as examples.

The original brochure described a Brazilian-population database for calculating and printing statistical maps. This was intended to reflect the population examined, since visual field measurements can be associated with demographic factors. Other instruments may use U.S. and/or European population datasets. This historical database description does not establish current comparative performance.

U.S. clearance is in progress. Historical conformity references in the source are not current U.S. clearance claims.

Representative: EVOptica.

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