

VISION-S® 700

Immersive refraction station





The Vision-S® 700 features an immersive optical path, that enables a complete refraction examination at both 6 m and 40 cm distances, surrounded by realistic images*.

Enhancing workflow efficiency and adapting to diverse clinical needs, the Vision-S® 700 refraction system is highly versatile. From fast, 3-minute algorithm-driven Smart Programs to the fully-guided Easy Refraction Mode™ and customizable manual protocols, the station provides your team with flexible options for every patient journey.

The continuous power variation offers a smooth patient experience with no break in vision. Immersive real-life inspired images, in addition to gold-standard vision charts, change the way the patient discovers their new prescription.



1. Cover your refraction needs with one compact system

Immersive optical system

The Vision-S® 700 refraction system features a proprietary optical path with a set of mirrors and screens, allowing refraction at distances of 6 m and 40 cm, with realistic scenes designed to deliver an immersive experience.

An extensive range of visual tests

You can expand your capabilities with a comprehensive suite of embedded visual charts and binocular vision tests, enabling you to deliver a tailored refraction process, all from one compact system.

Create personalized examination protocols by combining tests from the integrated library and save them for future use.

Occluders can be personalized, ranging from masks to fogging lenses of any power, enabling a customized binocular refraction approach.

A comprehensive range of visual acuity charts

- Logarithmic, Decimal, Snellen types
- Letters, Numbers, Tumbling E, Landolt C, HOTV
- The Auckland Optotypes
- Wide range of customization: Crowding effects, Pointers, Low or Reverted contrasts, Duochrome filters
- Record the visual acuity directly from the Vision-S® 700 console



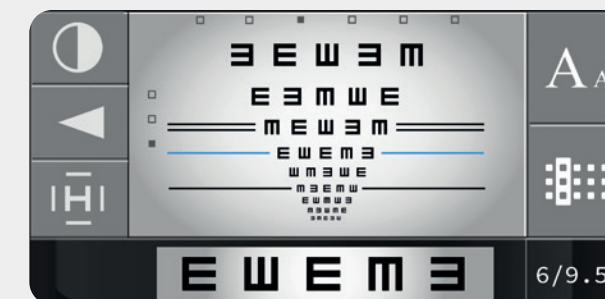
Pointers



Crowding effects



The Auckland Optotypes



Tumbling E

A wide range of binocular vision testing

- Binocular perceptual equalization: prismatic, red/green, letters
- Binocular accommodative equalization: prismatic duochrome
- Binocular vision and accommodation: Von Graefe dissociated phorias, associated phorias, Maddox, convergence amplitudes, NRA / PRA, LAG, fusion, horizontal and vertical aniseikonia



Visual acuity records



Worth test



Associated phorias

A powerful optical module

The exclusive optical module provides a seamless refraction experience thanks to continuous power variations. Step sizes vary from 0.25 D down to finer changes in sphere and cylinder with 1° axis when using algorithm-assisted procedures. Silent and instantaneous power changes occur with no vision interruption leading to patient comfort.

Digital Infinite Refraction™ technology synchronously compensates and automatically adjusts sphere, cylinder, and axis to enable three-dimensional refraction, allowing final results to be reached more directly than with traditional methods.



Comfort thanks to ergonomic controls

Refract intuitively thanks to the minimalistic physical phoropter controls. Equipped with a 10.4" wide touchscreen and keyboard, the system allows you to run complete refraction sequences while focusing on the patient. The user interface is designed to gain efficiency when performing manual examinations.



The Vision-S® 700 refraction system is a complete phoropter, offering customizable test sequences, manual refraction, and comprehensive binocular vision assessments. Additionally, it offers algorithm-assisted Smart Programs to further enhance workflow and deliver consistent outcomes.

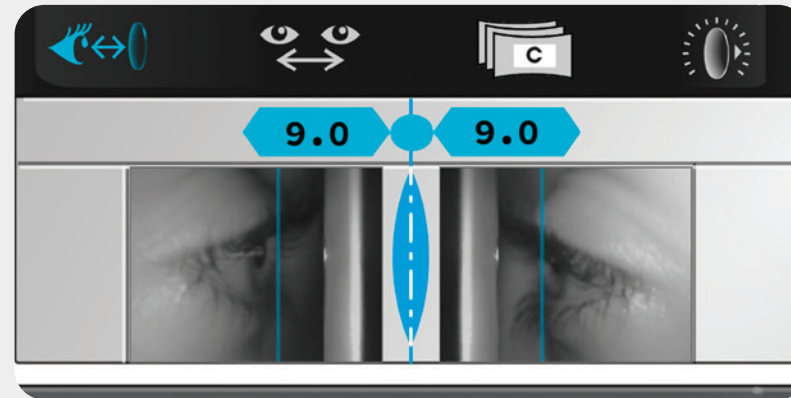


2. Transform your refraction capacity with ensured accuracy

Digital vertex distance measurement

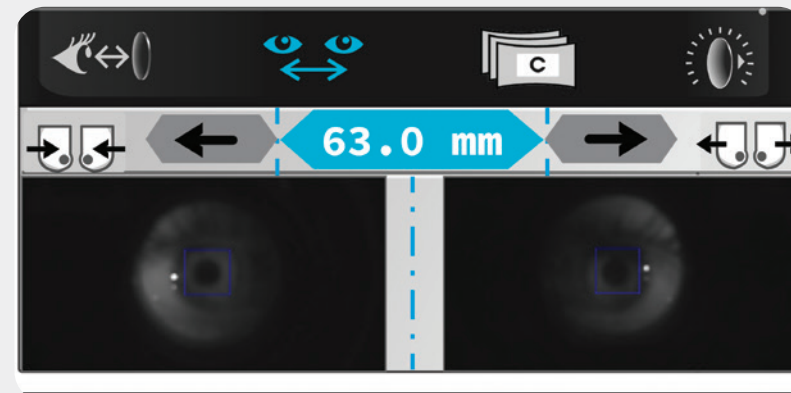
Integrated bilateral vertex distance measurement allows automatic compensation of the correction and ensures precise patient positioning, contributing to a personalized and accurate refraction examination.

Automatic compensation to the reference vertex and screen distance calculates the nearest 0.25 D prescription. Multiple customizable export formats are available for ophthalmic spectacle lenses (e.g., 12 mm) or contact lenses (0 mm), using manufacturers' reference for back vertex distances.



Eye-centering cameras

Live images captured by the integrated cameras make it easy to align the optical modules with the patient's eyes. Real-time visualization supports accurate positioning and ensures a smooth, efficient start to every exam.



Fast & Secure built-in programs

Fast & Secure smart programs are designed and clinically tested to provide a refraction time under 3 minutes for eligible patients, yielding similar outcomes as a gold standard manual refraction¹.

- More time can be allocated to extra examinations and screening of vision needs.
- Smart Check: quick refraction without fogging
- Smart Complete: quick refraction with fogging
- Smart Addition: 3-step near addition determination
- Semi-auto refraction: universal manual program for digital phoropter usage



Easy Refraction Mode™*

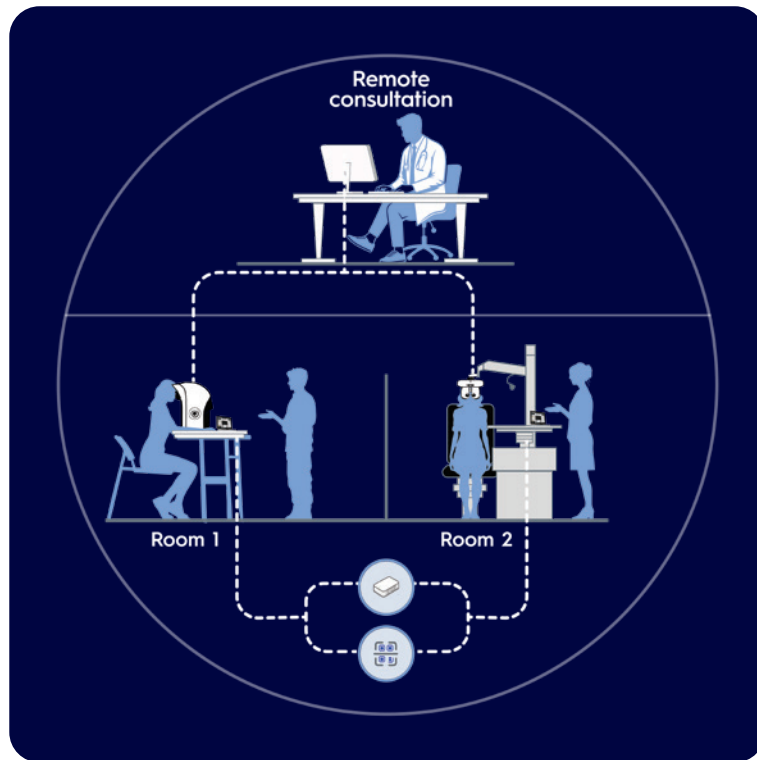
Whether you are looking for a fully-guided refraction experience or to implement a cross-functional workflow in your practice, the Easy Refraction Mode™ can help you to raise the refraction capacity. The Easy Refraction Mode™ is clinically designed to ease the prescription process by performing a complete refraction sequence including visual acuities and the patient's subjective preference.

- It includes:
- a dynamic refraction program automatically adapting the testing sequence to the patient's answers
 - a full-screen interface with clear instructions to follow
 - a concise refraction report with key information
 - an export feature to other phoropters in the range (Vision-R® 800, Vision-R® 700, and Vision-S® 700) via LAN or QR code, enabling a seamless multi-room patient journey



You can personalize your refraction programs to handle a wide range of cases more efficiently.

¹ Essilor International. Data on file 2021- VISION-R™ 700 clinical validation study performed by a third independent party, in Portugal including N=41 patients (20-65 years old). *Easy Refraction Mode™ is an option, its availability varies depending on local languages and regulations in different markets. Contact your local Essilor Instruments distributor.



A fully-connected refraction station

You can create efficient examination workflows with the Vision-S® 700 refraction system and other products from the range to increase your refraction capacity:

- On-site multi-room workflow:
A preliminary refraction session can be performed in one room and shared with all other rooms in the practice via LAN, compatible EHR systems, or QR code.
- Remote consultation capability:
All phoropter functions of the Vision-S® 700 can be operated from a distant practice through compatible remote-access platforms*, enabling flexible clinical support and supervision.

The Vision-S® 700 consolidates all input data and measurements, including recorded refractions, visual acuities, and binocular vision tests, into a single export file. Daily examination data are stored locally in temporary memory for later use when needed.

3. Immerse your patients in a unique vision experience

Your patient enjoys a smooth view and uninterrupted vision throughout the examination. Thanks to Digital Infinite Refraction™ technology, power changes occur without any break in vision compared to traditional phoropters.

Immersive experience

With the Vision-S® 700 station, the refraction examination is performed in a surrounding environment, using charts projected at a 6-meter distance and integrated into natural landscape scenes. This visual setting facilitates accommodation relaxation and helps the patient achieve a stable and comfortable far vision response throughout the examination.



Show the prescription in action

The Vision-S® 700 refraction station incorporates a demonstrative final comparison on static and dynamic scenes that offers patients the experience of their new correction in life-like simulated environments.

80% of patients preferred to be refracted with the Vision-S® 700 rather than a traditional phoropter set-up*.



Technical specifications

Centering

Pupillary alignment	490 to 80.0 mm at far distance (in 0.50 mm steps) 55.0 to 80.0 mm at near distance (in 0.50 mm steps)
Convergence	Automatic, compared to the position of the target for near vision and to the patient's pupillary distance
Vertex distance	From 4.0 to 30.0 mm in 0.5 mm steps, monocular, measured by cameras

Measuring Range

Sphere	From -20.00 D to +20.00 D
Cylinder	Up to 8.00 D depending on the lens combination. Cylinder from -7.00 D to 8.00 D with sphere at 0 D
Measuring Steps	· In "Standard" mode: 0.25 D increments, adjustable steps · In "Smart" mode: multiple larger and smaller increments
Axis	0° to 180° in 1° increments, with adjustable steps
Prism	0Δ to 20Δ in 0.1Δ increments, with adjustable steps

Auxiliary Lenses

Occluders	Dark, personalized convex lens
Pin hole	Yes
Retinoscopic lenses	+1.50 D, +2.00 D (powered by optical module)
Fog lenses	+1.50 D, +2.00 D (powered by optical module)
Jackson cross cylinders	±0.25 D, ±0.50 D (powered by optical module)
Fixed cross cylinders	±0.50 D (powered by optical module)
Prisms	3Δ base up, 3Δ base down, 6Δ base up, 10Δ base in (powered by varying prisms / diasporameters)
Maddox rods	Red, horizontal and vertical
Red/green filters	Red on the right eye, green on the left eye

Dimensions and Weight

Compact refraction unit	Height = 64.0 cm / Width: 32.5 cm / Depth: 55.0 cm / Total weight: 16.0 kg
Console (keyboard + screen)	Keyboard: 28 x 22 cm / Screen display: 10.4" / Total weight: 3.0 kg

Input/Output

Compact refraction unit	AC Input: 100-240V; 50/60Hz; 2.3 - 1.1A DC / Output: 24V; 141.6 Watt
Console (keyboard)	USB port (x4): DC Output 5V; 2A AC Input 24V, 2A



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ESSILOR INTERNATIONAL
147 rue de Paris,
94220 Charenton-le-Pont, France

Vision-S® 700 is a EU Class I medical device intended for Optometry.
Manufacturer: Essilor International. For professional use only, read attentively the instructions for use. As improvements are made, these specifications are not contractually binding and may be modified without prior notice.

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Tel: +33 (0)1 49 80 62 80
www.essilor-instruments.com
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