Intelligence in your vision!

Huvitz is always striving to reflect all your questions and demands through state-of-the-art refraction system.
Finally we introduce HDR-9000 reinforced with systematic customizable refraction entailing 21point exam and curvilinear design.

A brand new refractor, this is another challenge Huvitz will overcome.

Huvitz Digital Refractor HDR-9000

Tomorrow with Huvitz

What is achieved is not a future, but a history.
Striving future achievement and future satisfaction will always motivate Huvitz to redefine and recreate our history.
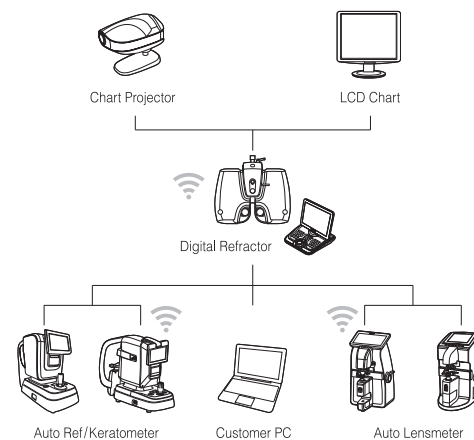
Huvitz Digital Refractor HDR-9000

Specification

Measurement Range

Spherical Lens	-29.00~+26.75D (Regular)
	-19.00~+16.75D (During XC or Prism Tests)
	(0.12/0.25/0.5/1/2/3/4D increments)
Cylinder Lens	0.00~±8.75D (0.25/0.5/1/2/3D increments)
Cylinder Axis	0°~180° (1/5/15° increments)
PD	48~80mm (0.5/1mm increments)
	Near PD : 50~74mm
	Near Working Distance : 35~70cm
Rotary Prism Lens	0~20△ (0.1/0.2/0.5/1/2△ increments)
Cross Cylinder	±0.25D
	±0.50D
	±0.25D Prism Split Lens (Dual Cross Cylinder)
Retinoscopic Lens	+1.5D, +2.0D (Measurement Distance 67cm, 50cm)

Auxiliary Lenses

Occluding Aperture	
Pinhole Lens	ø 2mm
Maddox Rod	Right Eye (Red, Horizontal), Left Eye (Red, Vertical)
Red / Green Filter	Right Eye (Red), Left Eye (Green)
Polarizing Filter	Right Eye (135°, 45°), Left Eye (45°, 135°)
Split(Dissociation) Prism	Right Eye (6△BU)
	Left Eye (10△BI : up to 5△complement)
PD Check Lens	
Fixed XC Lens	(±0.50D, with the axis fixed at 90°)
Visual Field	40° (VD=12mm)

Hardware Specification

Digital Refractor	329(W) X 103(D) X 296(H)mm, 4.20kg
Operation Panel	249(W) X 245(D) X 248(H)mm, 2.75kg (including internal printer)
Junction Box	240(W) X 141(D) X 71(H)mm, 1.24kg
Power Supply	100-240VAC~, 1.0~0.5A, 50/60Hz

Designs and details can be changed without prior notice for the purposes of improvement.

System Networking

Chart Projector   LCD Chart

Digital Refractor

Auto Ref/Keratometer   Customer PC   Auto Lensmeter

Huvitz

The More Exam Options You Have, The More You See

[All New] HDR-9000 Digital Refractor

Here HDR-9000 with all new technologies is waiting for you.
HDR-9000 helps those who suffer from visual acuity problems with advanced refraction customizable for individual preference and satisfaction.
A beautiful curvilinear design speaks emotional stability in you.
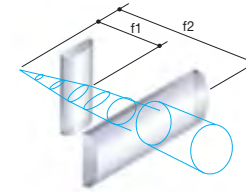With HDR-9000, take satisfaction which you have ever enjoyed before.

21 Point Exam Package

21 Point Exam removes complex knowledge or experience and now everyone can perform refraction easily.
No more headache-explanation is needed, but all results appear on display for easy reading for both examiners and patients.

DATA Result

Morgan's Criterion Result

Graphic Result

21 Point Exam

21 Point Exam removes complex knowledge or experience and now everyone can perform refraction easily.

No more headache-explanation is needed, but all results appear on display for easy reading for both examiners and patients.

Guidance with prism, addition power prescription and visual function test in accordance with exam results are available for easy use.

Cross Cylinder Lens

Dual cross cylinder lens as well as Jackson cross cylinder lens supports highly accurate exams over astigmatism axis and visual acuity.

Improved speed of lens movement prevents accommodation interfering exam and guarantees accurate astigmatic exam.

Monocular Height Adjustment

Customized exam is available for those who have different monocular heights within adjustment +/- 3mm.

Cross Cylinder Lens

21-point Exams #8 H,Phoria (F)

Illuminated Vertex Distance Check Window   Illumination / Detachable Near Chart Rod

PD Adjustment   Automatic Convergence Function

Tiltable Body

Highly advanced near vision exam is enabled with tiltable body from 0˚ to 45˚ delivering feeling of reading a book.

LCD Chart Compatibility

Compatibility with polarized LCD chart provides even economical efficiency.
(Both linear and circular polarization)

Fast and Silent Lens Loading

Fast lens loading helps to minimize accommodational interference and fatigue of examinees' eyes. Silent operation offers more comfort during exam.

Slimmer Design

Slimmer design even prevents minimum mechanical interference during exam and enables easy monitoring over patients.

Tiltable Refractor Body

"Experience 21 Point Exam"
Accuracy, Systemization and Customization,
All in 21 Point Exam.

Various Charts and Contents

Diversification of near vision exam is realized through highly reliable near vision test charts, visual function test and various refraction charts along with vision therapy-related contents.

Real Time Guide

Graphical representation displayed on screen guides test process easier and faster in real time.

Easy Explanatory Images

Various near vision charts for incomplete color blindness test, amsler grid and many other tests such as anatomy image, refractive power readings and progressive lens guidance help patients understand results easily.

Tablet PC Control (Optional)

Exam can be carried out with not only basic OP panel, but also Tablet and PC for examiners' preferences.
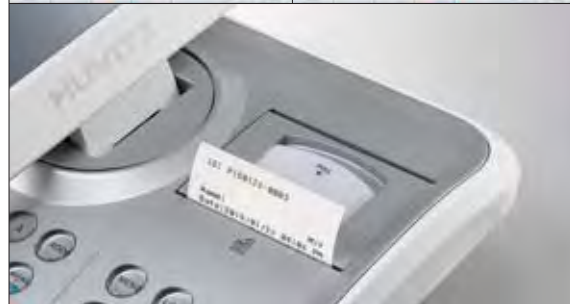(Tablet PC OS : Win 7 or 8 / Resolution 1366x768)

Various Charts / Real Time Guide

Displaying the Result in Tables and Graphics

Image Clips - Progressive

Image Clips - Vision

Built-in Printer

Tilting and Swiveling Display

Regardless of examinees' positions, information on display is recognized easily by tilting and swiveling display.

Wireless Communication

Wireless Communication with HRK-9000A and HLM-9000 via Wi-Fi allows perfect data transmission regardless of working environment.
Classic communication via RS-232 cable is available for data transmission with previous models.

Built-in Printer

Built-in printer on operation panel supports easy use of printer and even replacing paper at one go.

"Going Beyond Display"
New design of display not only conveys results, but also presents results and exam charts.