



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 Auto Lensmeter HLM-9000





## Change in Core Technology, Different Way of Measurement [All New] HLM-9000 Auto Lensmeter

Striving both accuracy in measurement and efficiency in operation at a time leads you to HLM-9000

HLM-9000 welcomes you to enjoy its superiority in wavefront analysis technology of Hartmann sensor and automatic lens recognition.

A beautiful curvilinear design speaks emotional stability to you.

With HLM-9000, take satisfaction which you have ever enjoyed before.

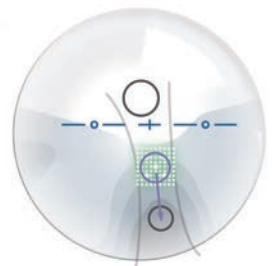


### Wavefront Analysis Technology of Hartmann Sensor


Implementation of Hartmann Sensor Wavefront Analysis Technology with more measuring spots maximizes accuracy in measurement even for multi-focal and high curved lenses.



Hartmann Sensor / Green Light Beam(540nm)



Progressive Lens Measurement



“Another Jump in Accuracy, Wavefront Tech”

Reliable Data with Maximized Satisfaction

### Hartmann Sensor Wavefront Analysis Tech

Implementation of Hartmann Sensor Wavefront Analysis Technology with more measuring spots maximizes accuracy in measurement even for multi-focal and high curved lenses.

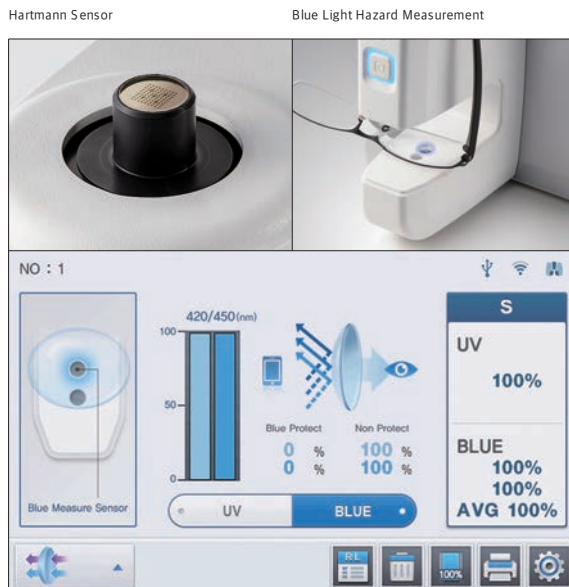
### Blue Light Hazard Measurement

As usage of smart phones, LCD monitors and many electric devices increases, blue light hazard emitted from LED displays is recognized as one of noxious rays.

HLM-9000 measures blue light transmittance of blue light blocking lens.

### UV Measurement

Easy operation and easy display of UV transmittance allow easy understanding of UV transmittance level from single vision lenses and sunglasses.



Blue Light Hazard and UV Measurement

### Multi-focal Lens Measurement

Automatic recognition of multi-focal lenses supports easy measurement with measurement guidance on display and even measurement of sunglasses and prism multi-focal lenses is simple.

### Improved Accuracy with Green Light Beam

Green light beam(545nm), which is nearly same as Fraunhofer e-line(546.1nm) of ISO standards, speaks higher accuracy in measurement than general infrared light.

### Auto Lens Recognition

Single vision, progressive and other lenses are recognized automatically and turns into corresponding measurement mode.

### Contact Lens Measuring Kit

Hard and soft contact lenses are measurable.  
(Soft Contact Lens Jig : Optional)



Contact Lens Measurement

Contact Lens Measuring Jig (Optional)

### 7" Color LCD Display

Wide display with unlimited viewing angle (178°) minimizes work fatigue and maximizes work efficiency.

### Wide Tilting Angle

Clear and bright display is readable from any direction with wide tilting angle.

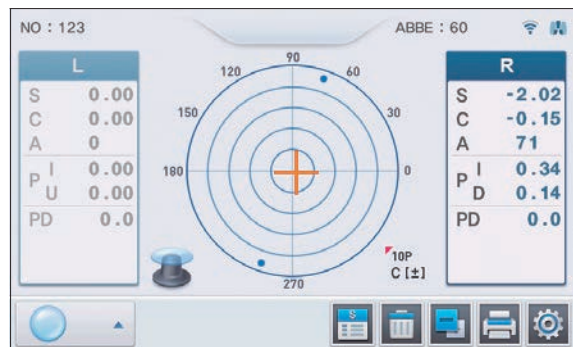
### Intuitive Prism Direction

Moving directions of both actual lens and lens on display are in same direction to avoid any confusion during measurement.

### Wireless Communication

Wireless communication via Wi-Fi allows perfect data transmission with HRK-9000A and HDR-9000 regardless of working environment.

Classic communication via RS-232 cable is available for data transmission with previous models.



User-friendly Graphic Interface



PD Bar and Measurement Nose

Auto Cutting Printer



### Simple GUI

GUI readable at the first glance is user-friendly with easy operation and anyone can easily conduct measurement without expert knowledge.

### Minimized Gap between PD Bar and Nose

Bi- or multi-focal lenses of small sizes are measurable and accurate measurement is possible over entire spot of lens.

### Auto Cutting Printer

Fast and quiet printer with automatic cutting function shows all data to customers quickly. Replacement of paper roll is in one touch action.

### Extra Storage

Extra storage on upper section allows small accessories to be stored without any dust penetration by cover of rubber material.

“Improved Interface means Improved Efficiency”  
Experience intuitive and easily accessible design



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 HLM-9000 reinforced with Hartmann sensor and curvilinear design.

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

## Huvitz Auto Lensmeter HLM-9000



### Specification

#### Measurement Specification

Spherical Power	0D ~ ±25D (0.25/0.12/0.06/0.01)
Cylinder Power	0D ~ ±10.00D (0.25/0.12/0.06/0.01)
Cylinder Axis	0° ~ 180° (1° step)
Progressive Power	0 ~ 10D (0.25/0.12/0.06/0.01)
Prism	0 ~ 20Δ(0.25/0.12/0.06/0.01)
PD Measurement	0 mm ~ 84 mm
Applicable Lens size	Φ20 mm ~ Φ120 mm

#### Wireless I/F

Protocol	IEEE802.11b 2.4GHz WiFi
Security mode	WPA2-PSK
IP configuration	DHCP mode

#### The others

Measurement mode	General, Progressive, Auto Detect, Contact, UV/BLUE
Cylinder	±, +, -
Prism	Rectangular / Pole / Displacement
LED wavelength	545 nm (Green) 395 nm (UV) 420 nm / 450 nm (BLUE)
Contact Lens	Hard/Soft Contact Lens
Abbe value	Manual Revision
Wave	e-Line, d-Line
Screen	85° Tilttable 7" Color LCD IPS Panel (800*480) Touch panel
Printer	Auto cutting Thermal Printer Printer paper (Width 57mm, Diameter 50mm, Length 33M)
Interface	RS-232, WiFi (For communication with HDR-9000), USB 2.0 (One port : For service)
Communication Speed (BPS)	9600,19200,38400,57600,115200 bps
Product Size	222(W) x 240(D) x 370(H) mm
Product Weight	5.4Kg
Power Supply	AC 100 - 240 V ~, 50/60Hz, 0.5-0.3A

#### Measurement Specification

Sphere and cylinder refractive power	Measuring Range		Precision
	< 0D ≥ -5D	0D ≤ +5D	
< -5D ≥ -10D	> +5D ≤ +10D	±0.09	
< -10D ≥ -15D	> +10D ≤ +15D	±0.12	
< -15D ≥ -20D	> +15D ≤ +20D	±0.18	
< -20D	> +20D	±0.25	

Prism Value	Measuring Range		Precision
	> 0Δ ≤ 5Δ		
	> 5Δ ≤ 10Δ	0.25	
	> 10Δ ≤ 15Δ	0.50	
	> 15Δ ≤ 20Δ	0.75	
	> 20Δ	1.00	

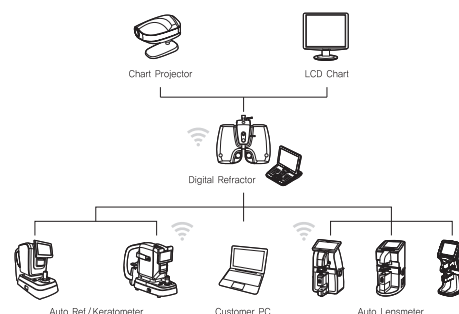
  

Pupil distance	± 0.5 mm
Transmission measurement	± 5%

#### Environmental conditions

Operating	Temperature: 10°C to 35°C (50°F ~ 95°F) Relative humidity : 30% to 90% (with non-condensing) Atmospheric pressure : 800hpa to 1060hpa
Storage	Temperature: -10°C to +55°C (14°F ~ 131°F) Relative humidity : 10% to 95% Atmospheric pressure : 500hpa to 1060hpa
Transportation (with packaging)	Temperature: -40°C to +70°C (-40°F ~ 158°F) Relative humidity : 10% to 95% Atmospheric pressure : 500hpa to 1060hpa

#### System Networking



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