Lensometry

HLM-9000

Spectacle and contact lens measurement with Hartmann technology.

The HLM-9000 measures different spectacle lenses, automatically recognises multifocal and single-vision lenses and sunglasses, assesses blue-light-blocking lens transmittance and provides UV transmittance levels.



HLM-9000 · Equipment view

Sources and documentation · Source checked on 2026-10-18

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Key advantages

Hartmann analysis

Sphere, cylinder and prism power measurement.

Sources and documentation · Source checked on 2026-10-05

Contact lenses

Measurement of rigid and soft contact lenses.

Sources and documentation · Source checked on 2026-10-05

Wide optical range

Sphere from −25 to +25 D; cylinder up to 10 D.

Sources and documentation · Source checked on 2026-10-05

Capabilities in practice

Hartmann lensometry

Sources and documentation

Rigid and soft contact lenses

Sources and documentation

Analyse lenses with Hartmann

Hartmann-sensor wavefront analysis covers multifocal and highly curved lenses. The device uses a 545 nm green beam.

- Analysis through a Hartmann point array.
- 545 nm green measuring beam.

Sources and documentation

Measure UV and blue transmission

Dedicated modes display UV and blue-light transmission through the lens. These results complement the lens power and type readings.

- UV transmission measurement from 0 to 100%.
- Separate blue-light transmission measurement.

Sources and documentation

Measure contact lenses

The dedicated kit positions contact lenses for measurement.

Depending on configuration

- Hard and soft contact-lens measurement.
- The soft contact-lens jig is optional.

Sources and documentation

Green-light lensmeter (545 nm)

The HLM-9000 is an easy-to-use instrument for precise measurement of single-vision, multifocal and sunglass lenses. It automatically identifies lens types and analyses transmittance, including blue light and UV filtering. Wavefront technology supports reliable measurements, while a tilting LCD touchscreen facilitates operation.

Multifocal lens measurement

Automatic multifocal lens recognition simplifies measurement with on-screen guidance, including for sunglasses and prismatic multifocal lenses.
Greater precision with green light
The green beam (545 nm), close to the Fraunhofer e-line (546.1 nm) specified by ISO standards, provides greater measurement precision than conventional infrared light.
Automatic lens recognition
Single-vision, progressive and other lenses are detected automatically, activating the appropriate measurement mode.

Key points

1. User interface and physical design
A 7-inch colour LCD with a wide 178° viewing angle reduces fatigue and supports work efficiency.
A wide tilt range provides clear, bright viewing from different angles.
A straightforward interface supports intuitive use, including by less experienced users.
Additional storage on top has a rubberised cover for small accessories.
2. Measurement method and precision
Intuitive prism direction: movements of the actual and displayed lens are synchronised to avoid confusion during measurement.
3. Connectivity and power
Wi-Fi communication transmits data to HRK-9000A and HDR-9000 models in different working environments.
Wired RS-232 communication is available for older models.

Features

1. Technical measurement features:
• Sphere: 0D~±25D (0.01/0.06/0.12/0.25).
• Cylinder: 0D~±10D (0.01/0.06/0.12/0.25).
• Axis: 0˚~180˚ (1˚ steps).
• Addition: 0~10D (0.01/0.06/0.12/0.25).
• Cylinder mode: 0 to ±10.00D (mixed/-/+).
• Prism: 0~20△ (0.01/0.06/0.12/0.25).
2. Lens features:
• Measurable lens diameter: ø20 to 120 mm (contact lens: ø5 mm or more).
• Contact lens measurement: rigid/soft.
• UV transmittance: 0~100%.
• Blue light transmittance: 0~100%.
3. Measurement method and precision:
• Wavelength: 545 nm (green).
• Measurement method: Hartmann sensor.
4. User interface and physical design:
• Display: tilting 7-inch colour IPS LCD (800x480) / touchscreen.
• Printer: automatic cutting printer.
5. Connectivity and power:
• Interfaces: RS-232C / USB 2.0 / Wi-Fi (802.11b, 2.4 GHz).
• Power: 100-240VAC~, 0.5-0.3A, 50/60Hz.
6. Dimensions and weight:
• Dimensions: 222 (W) x 240 (D) x 370 (H) mm.
• Weight: 5.4 kg.

Printing

Automatic cutting printer

Designed for a smoother workflow

Switch to the appropriate lens mode

Automatic recognition selects the mode for single-vision or progressive lenses. On-screen guidance supports multifocal and addition measurements.

- Single-vision and progressive recognition.
- On-screen guidance for distance, near and addition areas.

Sources and documentation

Measure powers and prism

The measuring modes cover spherical, cylindrical, addition and prismatic lens power.

- Sphere ±25 D and cylinder ±10 D.
- Addition up to 10 D and prism up to 20 Δ.

Sources and documentation

Designed for daily practice

Connect the refraction station

Results can be exchanged between compatible Huvitz devices at the refraction station.

- Wi-Fi communication with HRK-9000A and HDR-9000.
- RS-232 for the documented wired connections.

Sources and documentation



HLM-9000 · Equipment view

Sources and documentation

Technical specifications & documentation

Minimum sphere
-25 D

Sources and documentation

Maximum sphere
25 D

Sources and documentation

Maximum cylinder
10 D

Sources and documentation

Maximum prism
20 Δ

Sources and documentation

Connectivity
RS-232C · USB 2.0 · Wi-Fi 2.4 GHz

Sources and documentation

Adjustment ranges
Tilting display

Sources and documentation

Power supply
100–240 V AC ; 50–60 Hz

Sources and documentation

Dimensions
222 × 240 × 370 mm

Sources and documentation

Weight
5.4 kg

Sources and documentation

Downloads & resources

- https://huvitz.com/wp-content/uploads/2024/10/HLM-9000_8p_eng_20200410-1.pdf
  Source checked on 2026-10-05
- https://huvitz.com/wp-content/uploads/2024/10/HLM-9000_8p_eng_20200410-1.pdf
  Source checked on 2026-10-18
- https://huvitz.com/wp-content/uploads/2024/10/HLM-9000_8p_kor_20200410.pdf
  Source checked on 2026-10-18
- https://huvitz.com/wp-content/uploads/2024/09/HDR-9000_8p_eng_20180330.pdf
  Source checked on 2026-10-18

Your questions about HLM-9000

What is the documented Minimum sphere of HLM-9000?

-25 D

Sources and documentation

What is the documented Maximum sphere of HLM-9000?

25 D

Sources and documentation

Is the soft contact-lens jig included?

The brochure describes hard and soft contact-lens measurement but lists the soft-lens jig as optional. Its inclusion must be confirmed in the configuration.

Sources and documentation

What do the UV and blue-light modes show?

They measure lens transmission in the dedicated modes. The result characterises the tested lens and complements power measurements.

Sources and documentation

Which devices are named for wireless connection?

The brochure names HRK-9000A and HDR-9000 for Wi-Fi communication. It also describes RS-232 for wired connections.

Sources and documentation

Related products



HLM-7000P

Huvitz

Lensometry

Spectacle and contact lens measurement.

View product

Explore the ASEM clinical catalogue

Browse related areas of the ASEM catalogue. These links do not extend the indications of this device.

Diagnostics and biometry

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Installation

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Training

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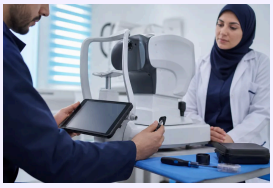

Service illustration

After-sales service

Contact ASEM for technical assistance and the support appropriate to your equipment.

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Service illustration

Expert advice

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+21320092281 · direction@asem-medical.com

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