Auto refractors and keratometers

# HRK-1

## Refraction, keratometry and contact lens fitting assistance.

The Huvitz HRK-1 combines refractometry and keratometry for objective refraction and corneal curvature measurements. Smart Assembly Moving Control adjusts the optical assembly to the patient’s refraction. Aiming Dot assists alignment, while Color View supports observation and contact lens fitting. Results can be viewed on the colour touch display and printed using the built-in thermal printer.




HRK-1 · Equipment view

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

Request a quote

View product

Generated on 2026-11-24

> This product sheet is prepared by ASEM. It does not replace the manufacturer’s official documentation or instructions for use.

# Key advantages

### Refraction and cornea

Refractometry and keratometry in a single instrument.

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

### Contact lens fitting

Assistance with contact lens fitting.

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

### Vertical tracking

Vertical positioning tracking over ±15 mm.

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

# Capabilities in practice

### Refractometry

Sources and documentation

### Keratometry

Sources and documentation

### Contact lens fitting assistance

Sources and documentation

## Signal-guided refraction

SAMC automatically adjusts movement of the optical assembly to the refractive error to stabilise the measurement signal.

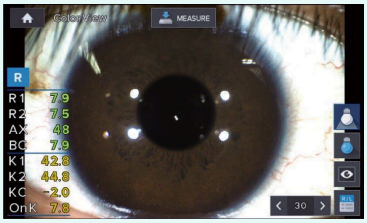
- Sphere: −30 to +25 D at VD 12 mm.
- Cylinder: up to ±12 D; axis from 0° to 180°.

Sources and documentation

## Colour and retro-illumination views

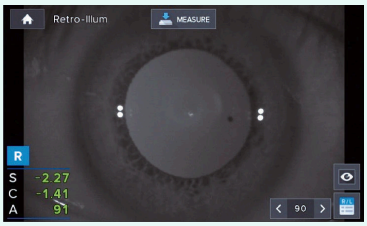
The colour camera and white LED show the eye and contact-lens fitting. Retro-illumination provides an additional view of opacities.

- Colour camera and white LED illumination.
- Dedicated retro-illumination mode.




Technical illustration — HRK-1

Sources and documentation




Technical illustration — HRK-1

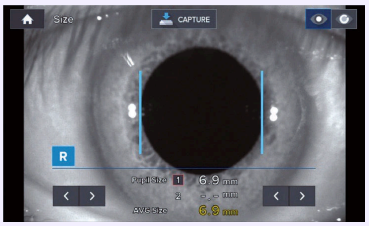
Sources and documentation

Sources and documentation

## Measure iris and pupil

The colour capture allows diameter markers to be positioned on the eye image.

- Iris/pupil diameter range: 2–14 mm.
- Minimum pupil for refraction: 2 mm.




Technical illustration — HRK-1

Sources and documentation

Sources and documentation

# Designed for a smoother workflow

## Locate, then align

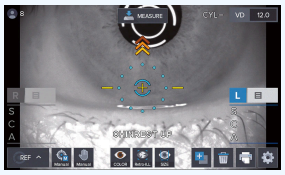
The Aiming Dot helps locate the visual apex. Vertical tracking then supports positioning while the joystick controls the approach.

- Automatic vertical tracking over ±15 mm.
- Approach and centration controlled by the joystick.



Technical illustration — HRK-1

Sources and documentation



Technical illustration — HRK-1

Sources and documentation

Sources and documentation

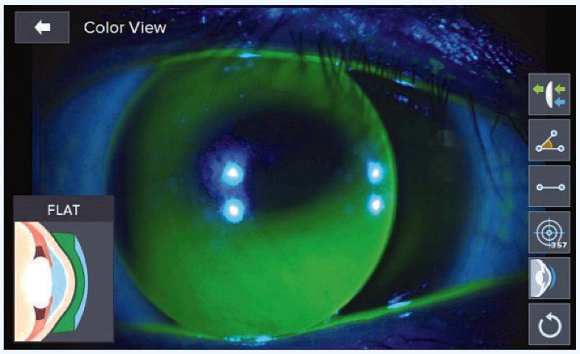
# Designed for daily practice

## Support rigid-lens fitting

The On-K guide calculates a base curve from keratometry values. The brochure limits this function to rigid gas-permeable lenses.

RGP lenses only

- Base-curve calculation from KER values.
- Fluorescein viewing with a yellow filter.




Technical illustration — HRK-1

Sources and documentation

Sources and documentation

## Review and transfer results

The 7-inch touchscreen displays results; the printer produces them after measurement.

- Memory for ten measurements per eye.
- RS-232; HLM-1 printer link through an optional Y-cable.

Sources and documentation



HRK-1 · Equipment view

Sources and documentation

# Documented installation and configuration

Manufacturer dimensions: 261 mm width × 513 mm depth × 433 mm height. Weight: 16 kg. Power supply: 100–240 V AC, 50/60 Hz. Accessories, integration with other devices and installation requirements must be confirmed with ASEM for the proposed configuration. No additional software compatibility is inferred solely from the product family name.

Sources and documentation

# Technical specifications & documentation

### Minimum sphere
-30 D

Vertex distance 12 mm.

Sources and documentation

### Maximum sphere
25 D

Sources and documentation

### Maximum cylinder
12 D

Sources and documentation

### Minimum pupil diameter
2 mm

Sources and documentation

### Connectivity
RS-232C

Sources and documentation

### Adjustment ranges
Vertical tracking ±15 mm

Sources and documentation

### Power supply
100–240 V AC ; 50–60 Hz

Sources and documentation

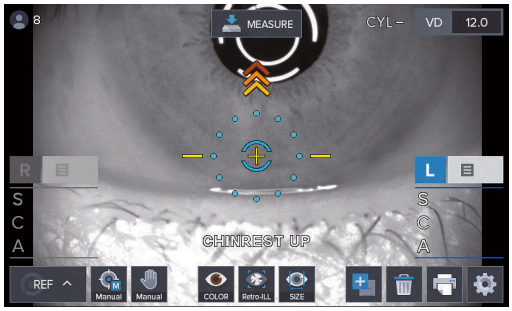
### Dimensions
261 × 513 × 433 mm

Sources and documentation

### Weight
16 kg

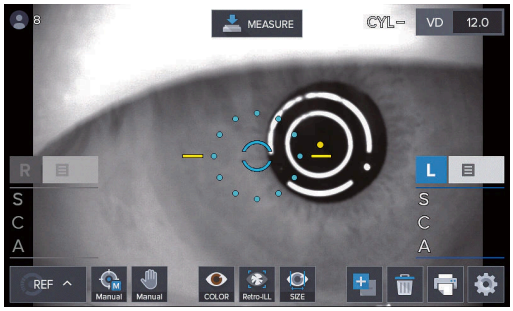
Sources and documentation

Vertex distance 12 mm.



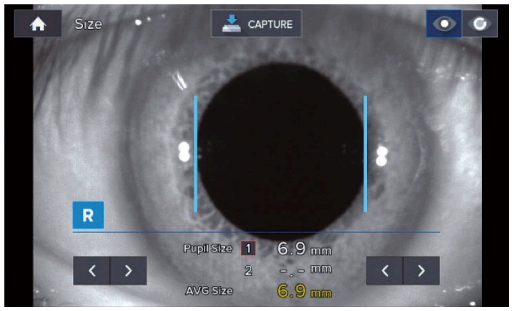

Technical illustration — HRK-1

Sources and documentation



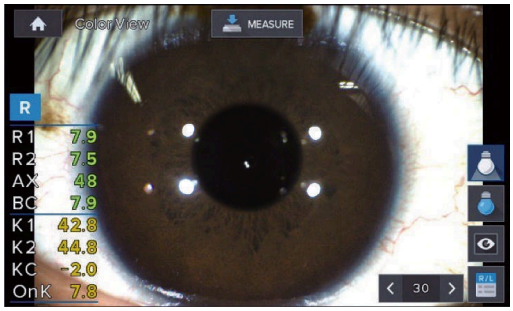

Technical illustration — HRK-1

Sources and documentation



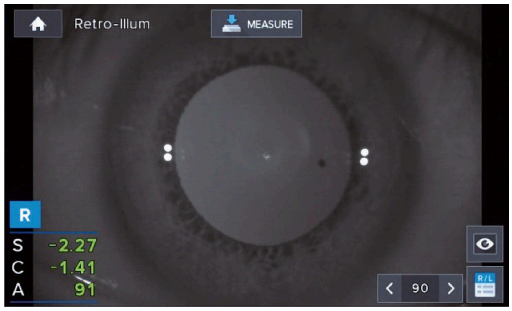

Technical illustration — HRK-1

Sources and documentation



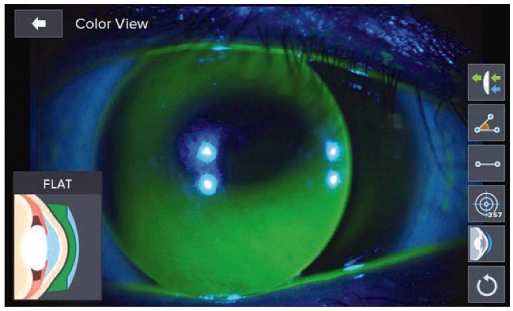

Technical illustration — HRK-1

Sources and documentation




Technical illustration — HRK-1

Sources and documentation




Technical illustration — HRK-1

Sources and documentation

# Downloads & resources

## Manufacturer documentation

PDF · 8,351 kB

Sources and documentation

- https://huvitz.com/wp-content/uploads/2024/10/HRK-1_8p_eng_20170907.pdf
  Source checked on 2026-10-05

- https://www.huvitz.com/product/hrk-1/
  Source checked on 2026-10-06
- https://huvitz.com/wp-content/uploads/2024/10/HRK-1_8p_eng_20170907.pdf
  Source checked on 2026-10-06
- https://huvitz.com/wp-content/uploads/2024/10/HRK-1_8p_eng_20170907.pdf
  Source checked on 2026-10-18

# Your questions about HRK-1

### What is the documented Minimum sphere of HRK-1?

-30 D — Vertex distance 12 mm.

Sources and documentation

### What is the documented Maximum sphere of HRK-1?

25 D

Sources and documentation

### Which configuration should I confirm for HRK-1?

Vertex distance 12 mm.

Sources and documentation

### Where can I find the documentation for HRK-1?

Manufacturer documentation (PDF) — https://asem-medical.com/storage/catalogue-enrichment/huvitz-20261006/hrk1-original.pdf

Sources and documentation

### Is tracking fully three-dimensional?

The brochure describes automatic vertical tracking. The operator positions the device with the joystick; fully automatic XYZ tracking is not specified for HRK-1.

Sources and documentation

### Which lenses does the On-K guide support?

The brochure limits it to rigid gas-permeable lenses. It uses keratometry values to suggest a base curve.

Sources and documentation

### What refraction range is documented?

At VD 12 mm, sphere runs from −30 to +25 D and cylinder up to ±12 D. The stated minimum pupil is 2 mm.

Sources and documentation

## Related products



### HRK-8100A

Huvitz

Auto refractors and keratometers

Automatic refraction with central and peripheral keratometry.

View product



### HRK-9000A

Huvitz

Auto refractors and keratometers

Refraction and ocular surface assessment in one instrument.

View product



## HTR-1A

Huvitz

Auto refractors and keratometers

Refraction, cornea and intraocular pressure in a combined platform.

View product



## Eyestar 900

Haag-Streit

Optical biometry

Optical biometry and keratometry in a system using EyeSuite.

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

# More than a device, a long-term partnership

Discuss your project with ASEM: equipment selection, installation, training and technical support.



Service illustration

### Installation

Discuss the installation requirements and configuration with our technical team.

Learn more

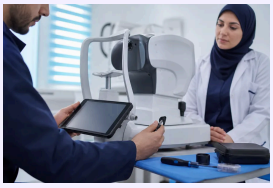


Service illustration

### Training

Ask about the training and familiarisation available for your equipment.

Learn more



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

Tell us about your clinical needs to discuss a suitable equipment selection.

Learn more

Contact a specialist | Explore all products | Manufacturer website

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