RODENSTOCK Instruments

Making analysis fashionable

REM 4000

Specular Microscope

RODENSTOCK

The REM 4000:
Tune up your business

> Knowledge about the condition of the endothelial layer is useful in many situations during the eye check-up. With REM 4000, it's easy to capture this super-thin layer.

What are your benefits?

Reliability
Counts up to 300 endothelium cells with each picture for a representative analysis

Expertise
Qualitive and quantitative assessment of the corneal endothelium

Personalisation
Various analysis methods: automatic analysis, dark area, L-count, and Core method

Hygienic
Patient-friendly non-contact examination

Added value
Pachymetry (CCT) is measured simultaneously with each central exam

Time-saving
Get the measurement done within 4 sec. per eye

Your digital partner in consulting.

Outstanding features

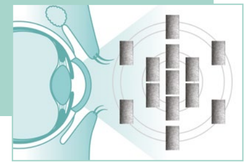
Continuous auto-capture
Of 16 images – to select the best shot with optimal sharpness

Built-in thermal printer
To display the endothelial image and the analysis results

Internal database
Store up to 16,000 clients on the integrated SD card

Fully automatic
Auto alignment and auto measurement

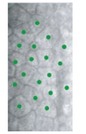
Wide capture area
13 fixation points for parafoveal and peripheral images



Manual and semi-manual analysis methods

High-quality images enable the analysis of cell density and the detection of irregularities in or degeneration of the endothelium, such as Polymegathism and Pleomorphism.
You can choose from several analysis methods.

Trace method



Core method

L-count method

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The **automatic analysis** enables the endothelial image to be displayed per various options:

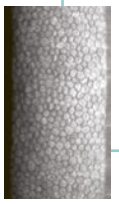
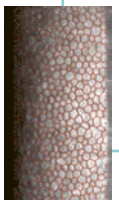
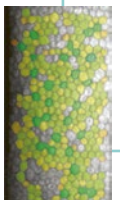


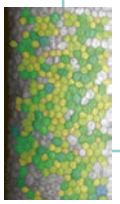
Photo – captured image of the **endothelial layer**



Trace – outlines of extracted endothelial cells



Area – colour-coded according to **cell size**



Apex – colour-coded according to **cell shape**

Dark area – automatically **extracts** dark areas

Specifications

REM-4000 is not available for US market.

MEASUREMENT

Measurement method	Non-contact
Pixel of CCD camera	480 (V) × 180 (H)
Capturing scope (WxH)	0.25 mm × 0.54 mm
Measurement range central corneal thickness	300 - 1000 µm
Measurement accuracy central corneal thickness	+/- 10 µm
Photography magnification	220x
Number of fixation points	1 central + 12 peripheral
Number of images per examination	16

MAIN UNIT

Display size	10.4" colour LCD
Stroke of moving sections (X,Y,Z axis)	88 mm, 40 mm, 50 mm
Stroke of chin rest	70 mm

ANALYSIS

Analysis method	Automatic analysis, L-count, Core method, Dark area analysis
Analysis values	Number (the number of analyzed cells) CD (cell density) AVG (average cell area) SD (standard deviation of cell area) CV (coefficient of variation of cell area) Max (maximum cell area) Min (minimum cell area)
Histogram	Area (Polymegathism: Distribution of cells according to their size) Apex (Plemorphism: Distribution of cells according to their shapes)

DATA MANAGEMENT

Built in printer	Thermal printer
Internal database	SD Card
Data output	USB-H, USB-D, LAN

DIMENSIONS AND ELECTRIC REQUIREMENTS

Dimensions WDH	309 × 491 × 450 mm
Weight	22 kg
Voltage	100 VAC to 240 VAC
Frequency	50/60 Hz
Power consumption	100 VA

RODENSTOCK Instruments
Wiesbadener Strasse 21
90427 Nürnberg, Germany
Phone +49 (0)911 938 546 2777
info@rodenstock-instruments.de
www.rodenstock-instruments.de

RODENSTOCK Instruments is a business unit of TOMEY GmbH