

OCULUS Twinfield® 3

Perimeter



OCULUS Twinfield® 3

The Reliability You Expect. With a New Look.

The Twinfield® 3 is the latest addition to the renowned line of high-quality bowl perimeters from OCULUS, setting new standards for visual field examinations. Whether managing glaucoma, clarifying neurological disorders, or preparing an expert opinion, the Twinfield® 3 offers reliable solutions for all these challenges!

Patient Instruction Audio

The pre-recorded audio instruction efficiently prepares your patients for the measurement process. Several language options are available, helping to save time and reduce language barriers for a smooth practice workflow.

Improved Ergonomics

The chin rest adjusts synchronously with the headrest, making patient positioning even easier.

Flexible Table Selection

Multiple table options are available, and existing ophthalmic tables can be used if desired.



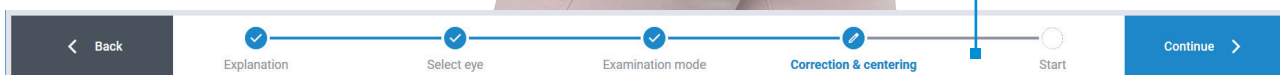
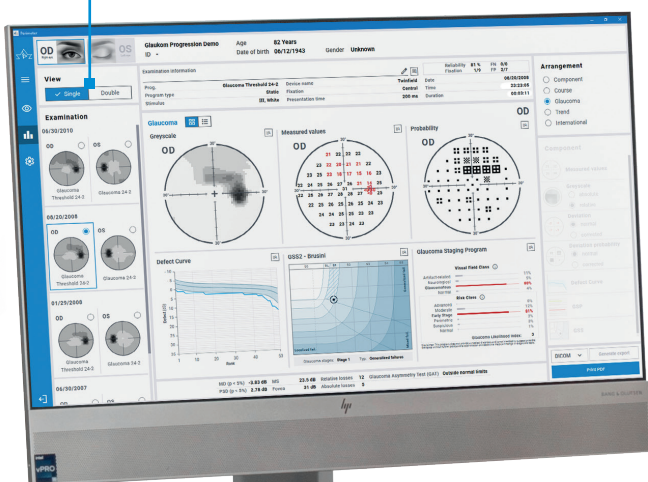
Redesigned Software

The Twinfield® 3 boasts a modern user interface and a clear, contemporary design. Now even more intuitive to use, it allows you to work faster and more efficiently. The new software is compatible with data from the previous Twinfield® modles, so no historical follow-up data is lost.

*Optimal Tablet
Mount Available*

Intuitive Operation with Progress Bar Display

The new examination procedure is straightforward and intuitive, taking you through the examination process step by step.



Kinetic Perimetry

Maximum Flexibility

Kinetic perimetry uses moving light points to measure the visual field. During the examination, the patient focuses on a central fixation mark while the examiner moves a light stimulus from the periphery towards the centre at a constant speed. The patient indicates when the light stimulus is perceived. Through this process, lines of equal light sensitivity, known as isopters, can be determined. This method can also be optimally used to determine the outer limits of the visual field, making it particularly useful for neurological diagnostics or for legal expert opinions. Examinations can be performed flexibly and reproducibly, using either manual or assisted manual control.

Manual Kinetic Perimetry

Traditional Goldmann manual kinetic perimetry involves manually positioning and moving the light stimuli. Twinfield® 3 eases the task of the examiner, offering a modern, computer mouse driven interface for the examination. All Goldmann stimulus sizes are available for this test.

Assisted Manual Kinetic Perimetry

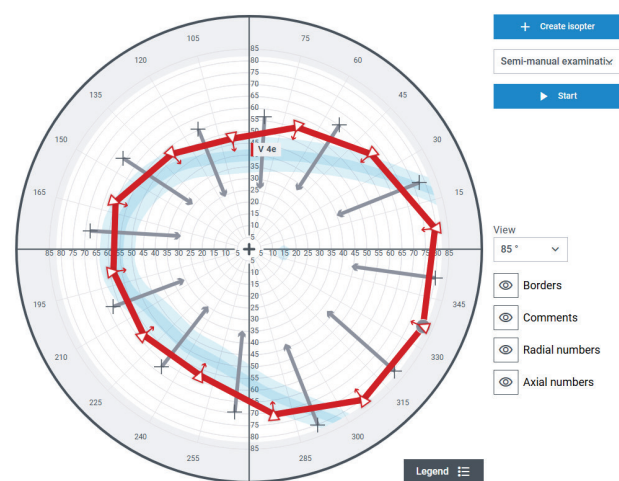
Assisted manual kinetic perimetry further simplifies the examination process. A set of linear segments of the desired paths of stimulus movement are set manually, and the stimulus will move along this course at a constant speed independently of the examiner, which increases reproducibility of findings.

Scotoma Mapping

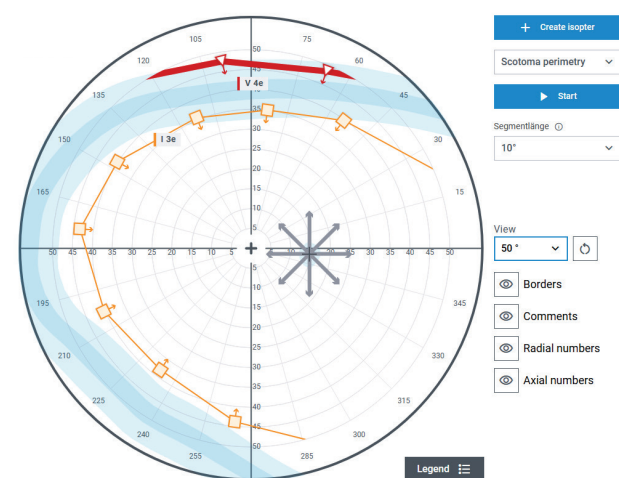
This examination method is useful for the repeated and systematic examination of previously known scotomas. Most commonly used for the mapping of the blind spot.

Automated Kinetic Perimetry

Fully automated kinetic tests enable fast and reliable examinations. They can be combined with static examinations to perform rapid screening tests of the entire visual field.



Application of assisted manual kinetic perimetry: after measuring the isopter V 4e, the segments for the stimulus I 3e are set.

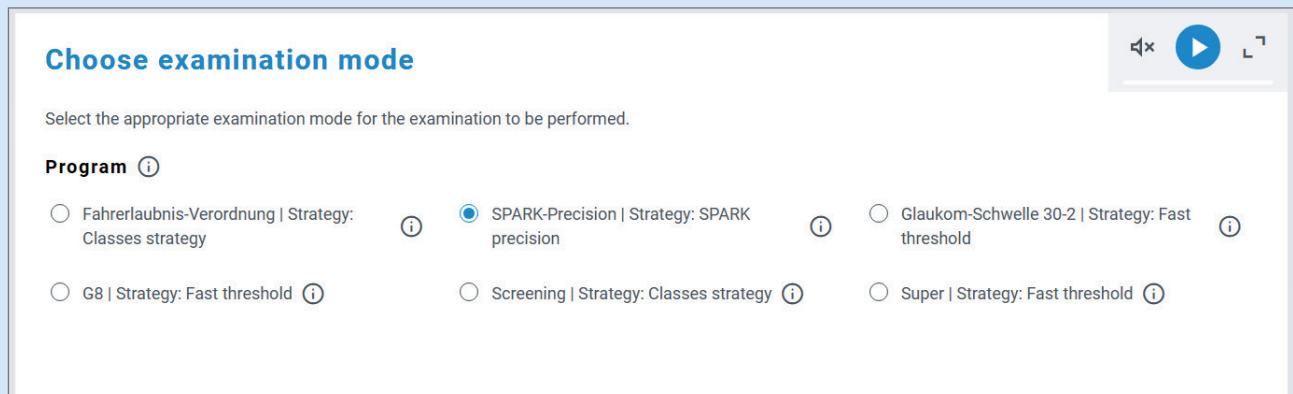


Scotoma mapping: the blind spot is scanned in 8 different directions using the stimulus I 4e.

Glaucoma in Focus

OCULUS Threshold Strategies

The Twinfield® 3 offers a wide range of examination programs and threshold-determining test strategies, making it suitable for regular visual field examinations of glaucoma patients. These threshold strategies provide a comprehensive depiction of the visual field. The collected numerical sensitivity values can be statistically evaluated and used for quantitative progression monitoring.



Choose examination mode

Select the appropriate examination mode for the examination to be performed.

Program ⓘ

☐ Fahrerlaubnis-Verordnung | Strategy: Classes strategy ⓘ

☒ SPARK-Precision | Strategy: SPARK precision ⓘ

☐ Glaukom-Schwelle 30-2 | Strategy: Fast threshold ⓘ

☐ G8 | Strategy: Fast threshold ⓘ

☐ Screening | Strategy: Classes strategy ⓘ

☐ Super | Strategy: Fast threshold ⓘ

For a smooth workflow in everyday practice, the most frequently used examination programs can be conveniently saved in a list of favourites for quick selection.

SPARK – Precision and Speed United

The **SPARK threshold strategy** was specifically developed for glaucoma diagnostics. Physiological connections between photoreceptors along retinal nerve fibre bundles enable fast and precise measurements of sensitivity values in the central visual field.

The visual field is measured in four phases and requires a maximum of three minutes per eye. The ultra-rapid initial assessment is completed in about 40 seconds and its preliminary results are further improved throughout the following three phases until the successful completion of the examination.

The SPARK threshold strategy is optimal for quantitative glaucoma monitoring, thanks to its short examination time and high repeatability of results. The smaller variability of the SPARK results allows for quicker detection of relevant changes in sensitivity values to support targeted and timely clinical treatment decisions.

Other Proven Examination Strategies

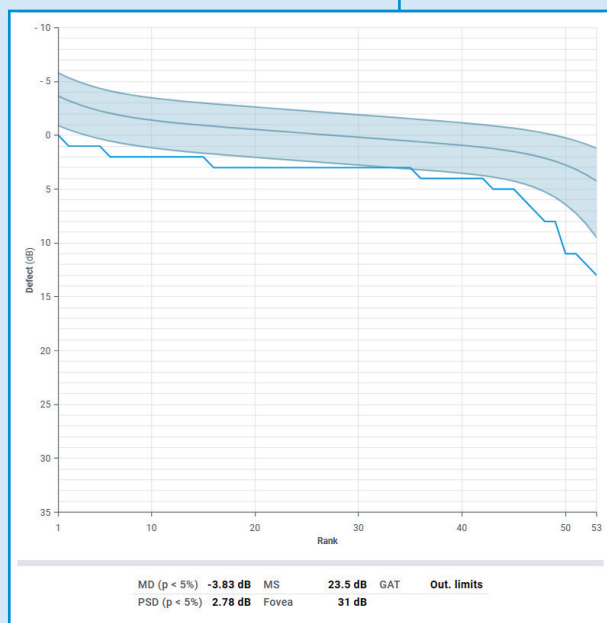
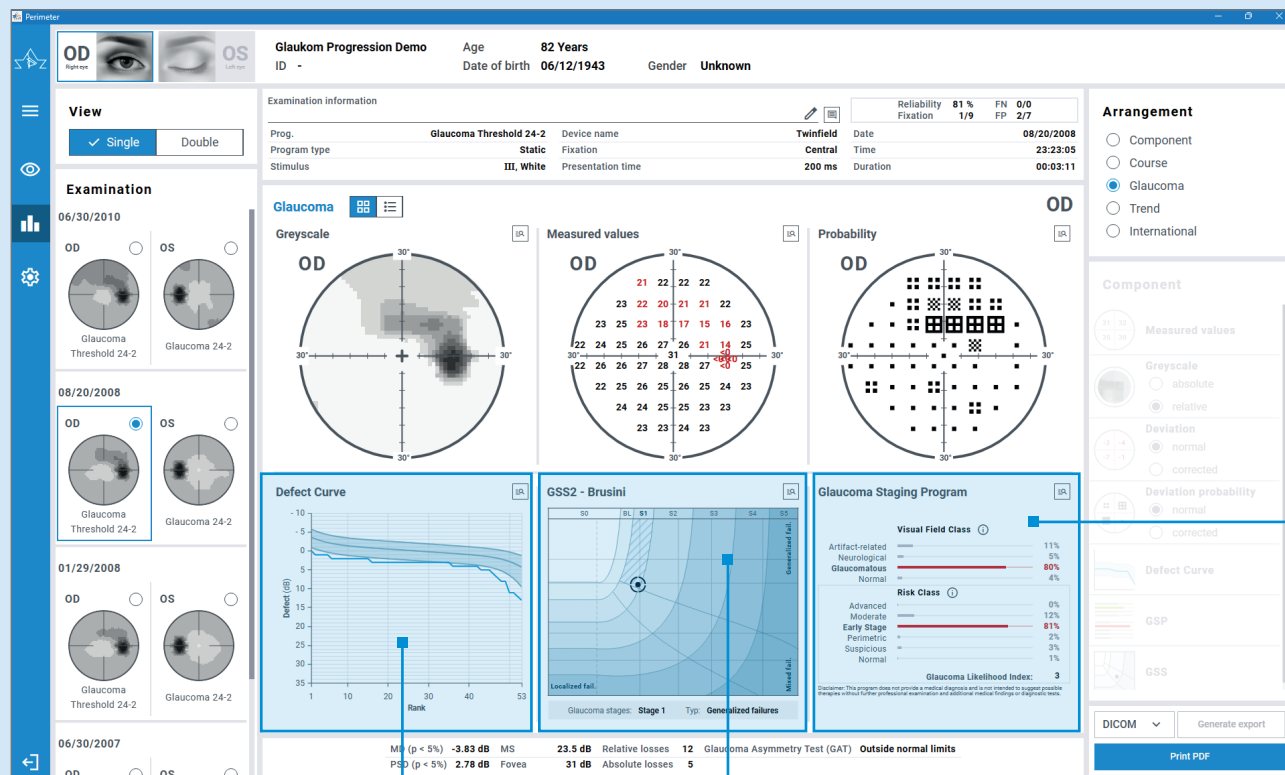
The **CLIP strategy** (Continuous Light Increment Perimetry) is a very fast threshold strategy, with a great acceptance among patients. Each location of the examination grid is tested independently using a stimulus of continuously increasing brightness, until the patient responds. This leads to a faster estimate of the local threshold, shortening the examination time and increasing patient satisfaction.

The OCULUS **Fast Threshold** is a widely used strategy that is often preferred over the standard **4/2 Threshold Strategy** due to its significantly shorter examination time.

Suprathreshold testing strategies are often chosen for their short examination times and high patient acceptance rates. The OCULUS **Class Strategy** assigns local sensitivities to several classes, while the **2-Zone or 3-Zone strategies** provide a simplified, but clinically relevant overview of the visual field.

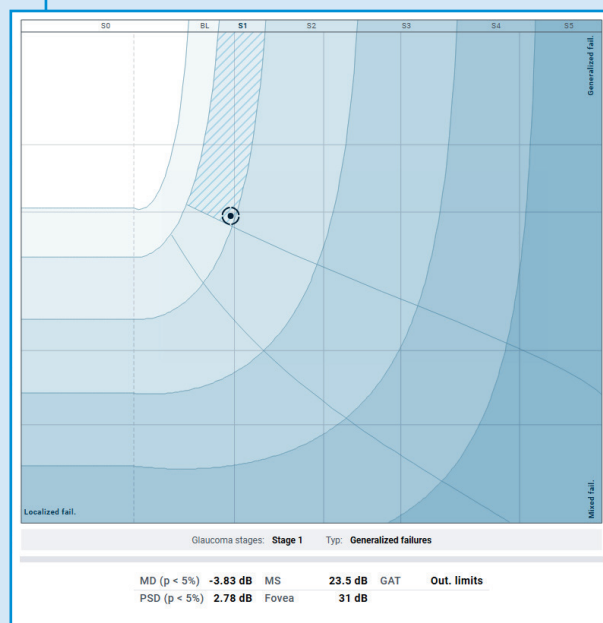
The Glaucoma Display

For Quick Decision Making



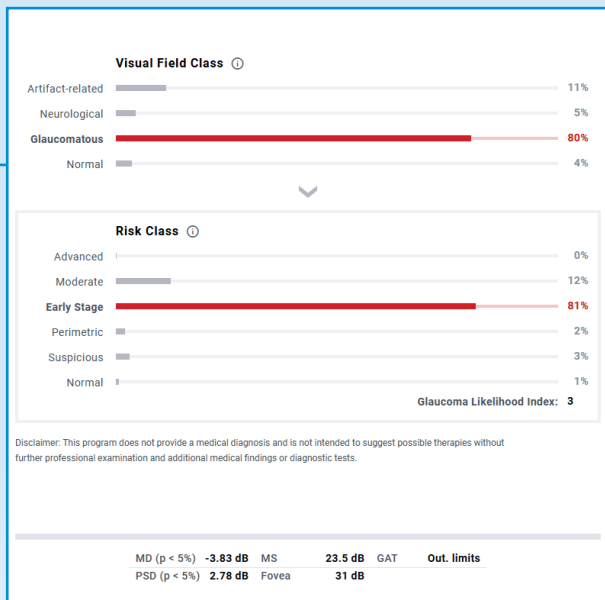
Cumulative Defect Curve

The cumulative defect curve is an alternative graphical representation of the total deviations that offers a view of the entire visual field and allows for the quick differentiation between local and diffuse visual field defects.



Intuitive Classification with the Glaucoma Staging System (GSS 2)

The Glaucoma Staging System graphically classifies measurement results based on the values of the perimetric indices, such as the mean deviation and pattern standard deviation (MD and PSD).



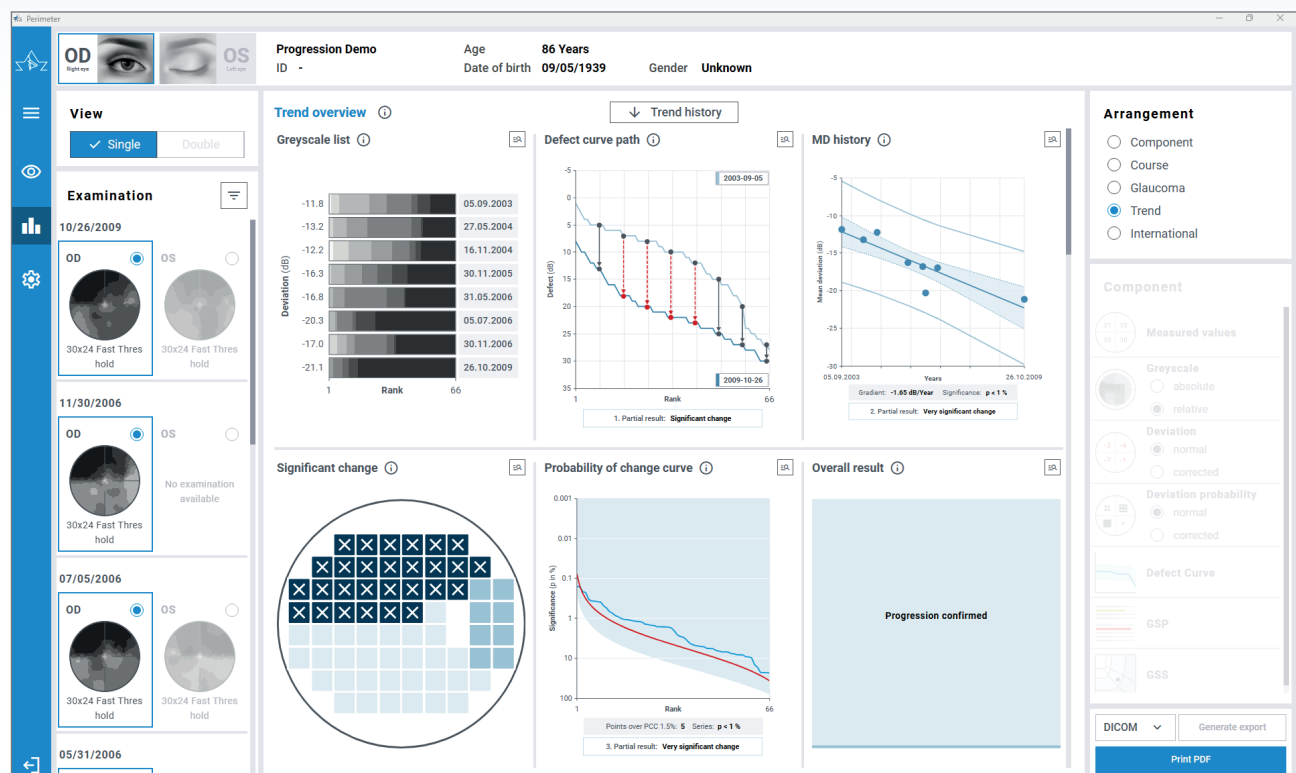
Risk Assessment: Glaucoma Staging Program (GSP)

This unique evaluation module is a valuable tool in the early detection of glaucoma and assessment of findings. The GSP classification has been optimized to fit the assessments performed by glaucoma experts. In addition to the classification of results, the GSP is also able to assess risks of different glaucoma stages based on visual field findings.

The results are presented as bar charts, allowing a quick and reliable assessment. A unique feature of the GSP is its ability to identify both glaucoma suspect patients and patients with possible pre-perimetric glaucoma based on the measured threshold values.

Quantitative Progression Analysis

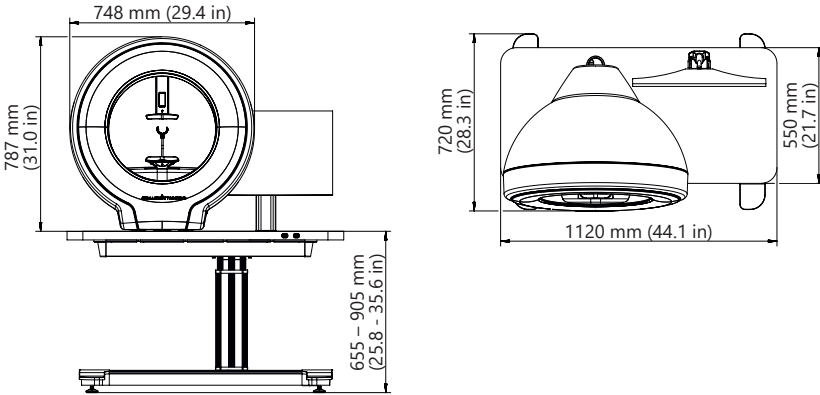
Quantitative assessment of visual field changes is performed through the simultaneous investigation of various parameters. Progression analysis is based on the **Threshold Noiseless Trend method**, which detects significant changes in the visual field and quantifies these losses by measuring yearly changes in the MD value – essential for glaucoma management!



OCULUS Twinfield® 3

Technical Data

Static Perimetry	
Programs	Glaucoma, macula, neurological, driver's license regulation screening Static-kinetic screening and user-defined tests
Test Patterns	Physiological patterns (Area 1-8), orthogonal patterns (30-2, 24-2, 30x24, 10-2), Esterman, user-defined patterns
Test Strategies	Threshold Strategies: OCULUS Fast Threshold, Full Threshold (4/2) Optional: SPARK strategy, CLIP strategy Suprathreshold strategies: OCULUS Class Strategy, 2-zone, 3-zone, defect quantification
Examination Speed	Adaptive, fast, normal, slow, user-defined
Fixation Control	Through central threshold, Heijl-Krakau (using the blind spot), live video image
Perimeter Bowl Radius	300 mm
Max. Eccentricity	90° (full field)
Stimulus Sizes / Stimulus Colour	Goldmann I-V / white, blue, red
Stimulus Duration	200 ms, user-defined
Stimulus Luminance Range / Steps	0 - 3180 cd/m² (0 - 10 000 asb) / 1 dB
Background Luminance / Background Colour	10 cd/m² / white 100 cd/m² / yellow
Optional Reports	Glaucoma Staging Program (GSP), Threshold Noiseless Trend (TNT) progression report
Kinetic Perimetry	
Measurement Methods	Automatic: examination along meridians with freely selectable distances Optional: Goldmann manual kinetic testing including: – Computer mouse freely moveable stimulus – Assisted kinetic testing along manually defined path – Scotoma mapping
Stimulus Speed	2° / s (Goldmann standard) or user-defined
Technical Specifications	
Patient Positioning	Motorized chin rest synchronized with adjustable forehead rest
Pupil measurement	Automated and manual
Dimensions (W x D x H)	748 x 592 x 787 mm (29.4 x 23.3 x 31.0 in) - without table
Weight	29 kg (without table and computer components)
Max. Power Consumption	45 W (without table and computer components)
Voltage / Frequency	100 - 240 V AC / 50 - 60 Hz
Recommended Computer Specifications	Intel® Core™ i5, 500 GB SSD, 8 GB RAM, Windows® 11, Intel® HD Graphics
Recommended Monitor Resolution	1920 x 1080 Pixel (Full HD)
Interface	USB-A, USB-C
Software	Device control, patient management, backup and printing software (Windows®), integrated network operation, easy EMR integration, DICOM (optional)



WWW.OCULUS.DE



The OCULUS QM system is certified in accordance with ISO 13485 (MDSAP) and (EU) 2017/745 (MDR)

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Find your local OCULUS representative on our website.

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