ziemer
OPHTHALMOLOGY

GALILEI G4

THE GALILEI G4
REACHING A NEW LEVEL IN CORNEAL TOPOGRAPHY AND TOMOGRAPHY

ALL-IN-ONE SOLUTION, FROM REFRACTIVE TO CATARACT SURGERY

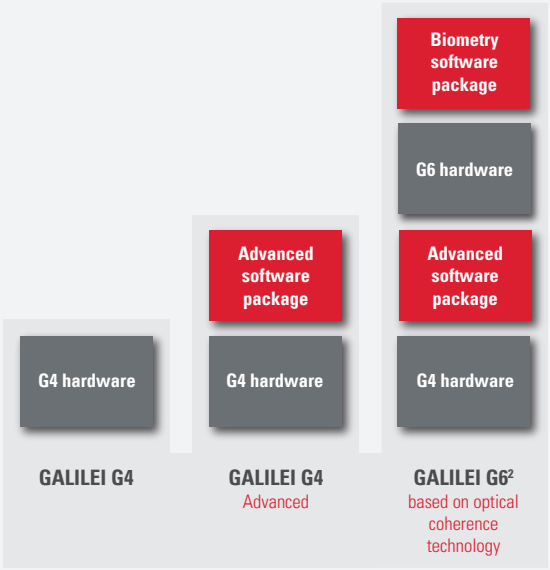
GALILEI G4

One platform, one solution

Buy today and upgrade tomorrow

The GALILEI G4 is a modular system, which you can upgrade according to your needs – any time. Find below the detailed information on the different modules available.

We simplify the daily workflow in your clinic with an all-in-one solution, from refractive to cataract surgery.



Available GALILEI modules

Feature / Module	G4	G4 Advanced	G6
Patented Dual Scheimpflug	●	●	●
Placido disc integrated	●	●	●
Total corneal power (ray-traced)	●	●	●
Total corneal wavefront (ray-traced)	●	●	●
Patented iris-based eye motion compensation	●	●	●
Optical biometry based on optical coherence technology	○	○	●
Option to buy additional software licenses:	●	All licenses included	All licenses included
• IOL calculator	○	●	●
• Corneal inlays	○	●	●
• DICOM	○	●	●
• Unlimited remote workstation[1]	○	●	●
• CSV export for clinical studies	○	●	●

● Standard software package
○ To be purchased separately

1 Max. 3 workstations at once.

GALILEI G4

The GALILEI G4 at a glance

3 new high-definition cameras
2 Scheimpflug and 1 top view

New automatic surface alignment for simplified measurement process

Reduced light intensity for the patient's comfort

The only true solution

- Get best pachymetry, elevation and curvature data – in all eyes
- High-precision anterior chamber ray-tracing

Reaching a new level in corneal tomography

- Highly accurate pachymetry and elevation values – independent of alignment
- The new Cone Location and Magnitude Index (CLMIaa), based on anterior axial curvature
- Ray-tracing for the real posterior surface

Patented iris-based eye motion compensation

- Don't worry about eye motion during examination
- Have confidence in your follow-up measurements thanks to realignment of maps in 3-D
- Ideal to monitor corneal stability and changes in your patient's eye

One platform, one solution

We simplify the daily workflow in your clinic with an all-in-one solution, from refractive to cataract surgery.

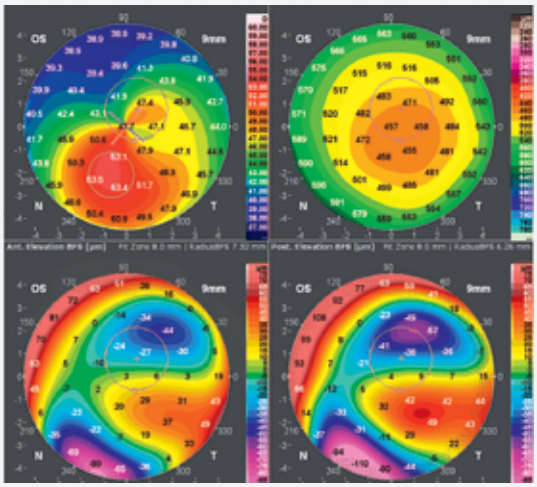
Option to upgrade to optical coherence technology for optical biometry measurements as soon as available[2]

- The GALILEI platform is unique. Stay flexible with your medical equipment
- Add on software packages according to your individual needs

New cross-slide for extra smooth operation

The new GALILEI G4 v6.1 software

- New and advanced mathematical algorithms for greater accuracy and repeatability
- Innovative calculation method for increased accuracy of peripheral data
- Redesigned maps with more detail and information

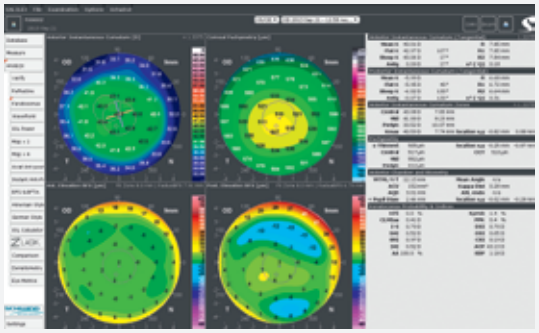


Refractive report of keratoconus

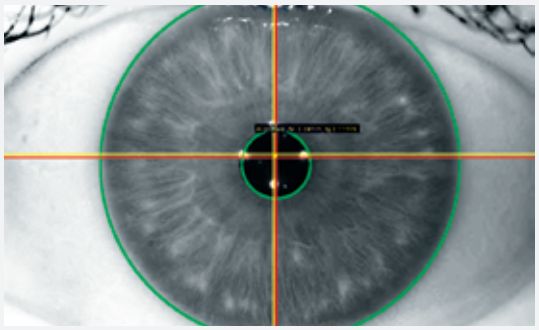
2 DISCLAIMER: The GALILEI G6 Lens Professional is pending FDA approval and is not available for sale in the US. For some other countries, availability may be restricted due to local regulatory requirements. Please contact Ziemer for details.

GALILEI G4

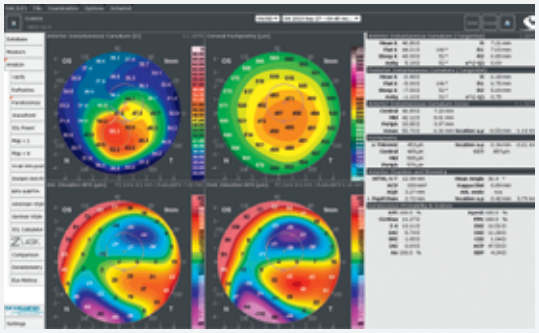
For refractive and cataract surgery



1



2



3

4

1 Reliable surface data for refractive and corneal surgery

The GALILEI G4 integrates Placido disc topography and Dual-Scheimpflug tomography in one device. This combination of technologies allows for a complete analysis of both the anterior and posterior corneal surface. The simultaneously recorded Dual-Scheimpflug images produce reliable pachymetry and posterior curvature data, whereas the Placido ring images provide highly accurate and complete anterior corneal curvature data fitted to the anterior corneal surface.

2 Automatic Surface Alignment

The four white Purkinje dots reflected from the cornea are associated with the direction of the patient's fixation. With a manual alignment of a red cross-hair to these four white spots, the center of the maps can be optimized precisely to the patient's line of sight. The GALILEI G4 then offers a unique Automatic Surface Alignment option, which automatically realigns all data to this predefined center of the maps.

3 Precise Keratoconus Screening

The GALILEI G4 offers a complete dataset for Keratoconus screening. Precise posterior corneal curvature and elevation data make it easy to detect posterior corneal bulging and signs of corneal asymmetry even in the very early stages. With the CLMIaa (Cone Location and Magnitude Index) GALILEI provides a great tool to detect and follow-up on keratoconus and keratoconus-like patterns.

4 Ray-traced Total Corneal Wavefront solution

With its powerful ray-traced Total Corneal Wavefront solution, the GALILEI G4 precisely measures high order aberrations for highly predictable outcomes in cataract surgery. The high order aberration display helps identifying the correct IOL for every patient – every time.

GALILEI G4

Specifications




Technical specifications	
Scheimpflug camera pixel resolution:	2 × 1280 × 960
Top view camera pixel resolution:	1280 × 960
Placido disc:	20 rings
Measurement speed:	60 images in 1 second
Number of measurement points – Scheimpflug/Placido:	up to 100 000 measurement points
Displayed map coverage:	max. 10 mm
Keratometry:	25–75 D (4.5–13.5 mm)
Central Corneal Thickness:	250–800 µm
Keratometry in-vivo repeatability:	+/– 0.1 D*
Central Corneal Thickness in-vivo repeatability:	+/– 2 µm*

Electrical conditions	
Power requirement:	100–240 VAC, 50 / 60 Hz, 400 W
Fuses (110/230 V):	2 × T6, 3 AH, 250 VAC

Classification according to IEC 60601-1	
Type of protection against electric shock:	Class 1
Degree of protection against electric shock:	Type B Applied part
Degree of protection against damaging penetration of water:	IP20

Measurement unit characteristics	
Measuring principle:	Rotational scan of Dual Scheimpflug slit images combined with Placido and top view images
Observation illumination:	NIR (near-infrared) LED 810 nm
Scheimpflug illumination:	Blue LED (UV-free) 470 nm
Placido illumination:	NIR (near-infrared) LED 760 nm
Image acquisition:	3 CCD cameras
Images per scan:	7–30 (adjustable by user)

* Values represent the standard deviation of repeated measurements.

Ziemer Ophthalmic Systems AG
a Ziemer Group Company
Allmendstrasse 11
CH-2562 Port, Switzerland
Phone +41 32 332 70 70
innovation@ziemergroup.com

www.ziemergroup.com
galilei.ziemergroup.com

Ziemer USA, Inc.
a Ziemer Group Company
620 E. Third Street
Alton, Illinois 62002, USA
Phone +1 618 462 9301
usa@ziemergroup.com

Ziemer Ophthalmology (Deutschland) GmbH
a Ziemer Group Company
Im Hausgrün 15
DE-79312 Emmendingen, Germany
Phone +49 7641 9333860
info-deutschland@ziemergroup.com

Ziemer Ophthalmic Systems is a privately owned, Switzerland-based med-tech company, whose activities are focused exclusively on ophthalmology.

At Ziemer we strive to empower ophthalmologists and optometrists to deliver better vision care to their patients by creating superior surgical and diagnostic tools.

Document No. 3941-0109-02
REF 410.931.013