

#### Your local contact:

Argentina Carl Zeiss Argentina S.A. Calle Nahuel Huapi 4015 / 25 C1430 BCO Buenos Aires Phone: +54 11 45 45 66 61 bruzzi@zeiss.com.ar

Australia Carl Zeiss Pty Ltd Tenancy Office 4, Level 1 40-52 Talavera Road North Ryde NSW 2113 Australia Phone: +61 2 9020 1333 med@zeiss.com

Austria Carl Zeiss GmbH Laxenburger Str. 2 1100 Vienna Phone: +43 1 79 51 80 austria@zeiss.org

Carl Zeiss NV-SA Ikaroslaan 49 1930 Zaventem Phone: + 32 2 719 39 11 info@zeiss.be

Carl Zeiss do Brasil Ltda. Av. Nacoes Unidas, 21711 CEP04795-100 São Paulo Phone: +55 11 5693 5521

Carl Zeiss Canada Ltd. 45 Valleybrook Drive Toronto, ON M3B 2S6 Phone: +1 800 387 8037 micro@zeiss.com

medbrasil@zeiss.org

Carl Zeiss Shanghai Co. Ltd. 1/f., Ke Yuan Building 11 Ri Yin Nan Road Waigaoqiao Free Trade Zone 2005 Yang Gao Bei Road Shanghai 200131 Phone: +86 21 5048 17 17

Carl Zeiss spol. s.r.o. Radlická 14/3201 150 00 Prague 5 Czech Republic Phone: +420 233 101 221 zeiss@zeiss.cz

Czech Republic

Carl Zeiss Meditec France SAS 60, route de Sartrouville 78230 Le Pecq Phone: +33 1 34 80 21 00 med@zeiss.fr

Carl Zeiss Meditec VG mbH Carl-Zeiss-Strasse 22 73447 Oberkochen Phone: +49 7364 20 6000 vertrieb@meditec.zeiss.com Surgical Ophthalmology: Phone: +49 800 470 50 30 iol.order@meditec.zeiss.com

Hong Kong Carl Zeiss Far East Co. Ltd. Units 11-12. 25/F Tower 2, Ever Gain Plaza No. 88 Container Port Road Kwai Chung Phone: +852 2332 0402 czfe@zeiss.com.hk

Carl Zeiss India Pvt. Ltd. 22. Kensington Road Bangalore 560 008 Phone: +91 80 2557 88 88 info@zeiss.co.in

Italy Carl Zeiss S.p.A. Viale delle Industrie 20 20020 Arese (Milan) Italy Phone: +39 02 93773 1 infomed@zeiss.it

Carl Zeiss Meditec Japan Co. Ltd. Shinjuku Ku 22 Honchio-Cho Ophthalmic instruments: medsales@zeiss.co.jp Surgical instruments: Phone: +81 3 33 55 0341 cmskoho@zeiss.co.jp

Carl Zeiss Sdn Bhd. Lot2, Jalan 243/51 A 46100 Petaling Jaya

Selangor Darul Ehsan Phone: +60 3 7877 50 58 malaysia@zeiss.com.sg

Carl Zeiss de México S.A. de C.V. Avenida Miguel Angel de Quevedo

04010 Mexico City Phone: +52 55 59 99 0200 cz-mexico@zeiss.org

Netherlands Carl Zeiss B.V. Trapezium 300 Postbus 310 3364 DL Sliedrecht Netherlands Phone: +31 184 43 34 00

info@zeiss.nl

New Zealand Carl Zeiss (N.Z.) Ltd. 15B Paramount Drive P.O. Box 121 - 1001 Henderson, Auckland 0650 New Zealand Phone: +64 9 838 5626 med@zeiss.com

Carl Zeiss sp. Z o.o. ul. Lopuszanska 32 02-220 Warsaw Phone: +48 22 858 2343 medycyna@zeiss.pl

Singapore Carl Zeiss Ptd. Ltd. 50 Kaki Bukit Place Singapore 415926 Phone: +65 6741 9600 info@zeiss.com.sg

South Africa Carl Zeiss (Pty.) Ltd. 363 Oak Avenue Randburg 2194 South Africa Phone: +27 11 886 9510 info@zeiss.co.za

South Korea Carl Zeiss Co. Ltd. Seoul 121-828 141-1, Sangsu-dong 2F, BR Elitel Bldg. South Korea Phone: +82 2 3140 2600 korea@zeiss.co.kr

Carl Zeiss Meditec Iberia S.A.U. Ronda de Poniente, 15 Tres Cantos 28760 Madrid . Phone: +34 91 203 37 00 info@zeiss.es

> Sweden Carl Zeiss AB Tegeluddsvaegen 76 10254 Stockholm Phone: +46 84 59 25 00 info@zeiss.se

Switzerland Carl Zeiss AG Feldbachstrasse 81 8714 Feldbach Switzerland Phone: +41 55 254 7534 info@zeiss.ch

Thailand Carl Zeiss Thailand Floor 8, Thosapol Land Building 2 230 Ratchadapisek Road Huaykwang, Bangkok 10310 Thailand Phone: +66 2 2 74 06 43 thailand@zeiss.com.sg

United Kingdom Carl Zeiss Ltd. 15-20 Woodfield Road Welwyn Garden City Hertfordshire, AL7 1JQ United Kingdom Phone: +44 1707 871200 info@zeiss.co.uk

United States of America Carl Zeiss Meditec, Inc. 5160 Hacienda Drive Dublin, CA 94568 Phone: +1 925 557 4100 info@meditec.zeiss.com



### **OPMI LUMERA 700**

A unique microscope for cataract and retina surgery

 $\epsilon$ 



Carl Zeiss Meditec AG Goeschwitzer Strasse 51-52 07745 Jena Germany www.meditec.zeiss.com/lumera www.meditec.zeiss.com/contacts







## **Technical data**

# OPMI LUMERA 700

OPMI LUMERA 700	
Surgical microscope	Motorized zoom system with apochromatic lens, zoom ratio 1:6
	Magnification factor $\gamma = 0.4-2.4$
	Focusing: electric/motorized, Focus range: 70 mm
	Objective lens: $f = 200 \text{ mm}$ (optionally also $f = 175 \text{ mm}$ or $f = 225 \text{ mm}$ with support ring)
	Binocular tube: Invertertube E (optionally also Invertertube, $180^{\circ}$ swivel tube, $f = 170$ mm, inclined tube, $f = 170$ mm)
	Wide-angle eyepiece 10 x (optionally also 12.5 x)
Light source	SCI: Coaxial and full-field illumination (patent pending)
	Fiber optic light source Halogen:  — Lamp housing with 2 halogen lamps (1 backup lamp) in quick-change slide-in mechanism  — If the primary halogen lamp fails, the microscope switches to the backup lamp automatically
	Fiber optic light source Superlux® Eye:  — Xenon short arc reflector lamp with HaMode filter  — Backup lamp in lamp housing, can be slid into position manually
	LED fiber optic light source:  - Near-daylight color temperature  - 50,000 hour lifetime at 50 % light intensity  - HaMode filter  - 25 % gray filter
	For all light sources:  — Blue blocking filter  — Optional: Fluorescence filter
Slit lamp	Slit widths: 0.2 mm, 2 mm, 3 mm, 4 mm Slit height: 12 mm
XY coupling	Travel range: max. 61 mm x 61 mm Automatic centering at the touch of a button
Video monitor	22" LCD display Resolution: 1,680 x 1,050
Stand	Maximum permissible weight load of the spring arm: When the surgical microscope is attached to the arm (without tube, eyepiece or objective lens) and the XY coupling is also attached, a maximum of 9 kg of additional accessories can be attached to the spring arm
Compliance	Class 2 LED Device as per IEC 60825-1:2001

RESIGHT 500 and RESIGHT 700		
Mechanical data	Focus range with LH175 lens holder: 31 mm (position of intermediate image)	
	Focus range with LH200 lens holder: 38 mm (position of intermediate image)	
	Rotation angle of lens revolver and holder: 0°–360°	
Lenses included	60 D, 128 D	
Weight	RESIGHT 500 (manual): 0.45 kg RESIGHT 700 (motorized): 0.50 kg	
Safety range	At least 110 mm	

FCP-WL wireless foot control panel		
Power supply	3 x 1.5 V Baby C batteries, alkaline manganese	
Transmission frequency	2,402 2,480 MHz	
Battery life	Around 2–6 months depending on how much the foot control panel is used	

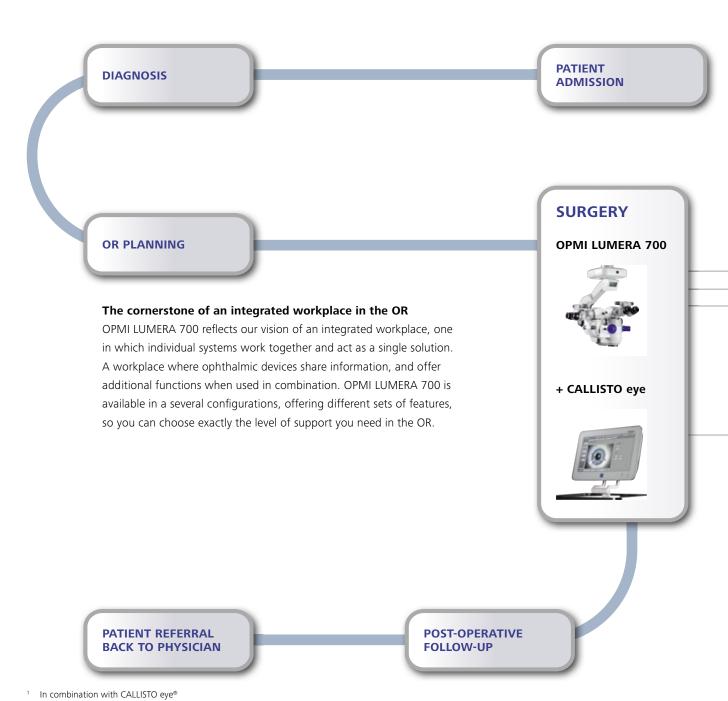




### **OPMI LUMERA 700**

### For premium performance in the OR

New operating techniques. High patient expectations. Rising cost pressures in the OR. You and your operating microscope are facing more and more demands all the time. So to provide you with optimal support during anterior and posterior eye surgery, OPMI LUMERA 700® boasts an exhaustive range of customization options – as well as the utmost in optical quality.



<sup>&</sup>lt;sup>2</sup> Integrated Data Injection.



### For all cataract and retinal surgeons

#### Perfect visualization of the eye

- SCI technology for a precise, detailed view of the eye
- Apochromatic ZEISS optics
- DeepView, the depth-of-field management system, for optimizing the scope for maximum depth of field or light transmission
- Superlux® Eye xenon, LED and halogen light sources
- Integrated keratoscope

#### Maximum patient safety

- Retina protection filter and device
- Backup if a light source breaks
- Manual mode for all key functions

#### Simple to operate

- Modern, cableless design
- Freely configurable, wireless foot control panel
- Read microscope settings on the overhead display
- Fast focus for switching rapidly between different focal planes
- Magnetic brakes for easy positioning
- Compact park position

### **Especially for retinal surgeons**

#### An outstanding view of the retina

- RESIGHT® fundus viewing system for superb visualization of the retina
- Invertertube® for ergonomic sitting posture
- Workflow steps for predefining the system settings and camera settings you need
- Integrated slit illuminator

### For an optimal workflow

#### Across-the-board integration for teachers and presenters

- An assistant microscope, the magnification of which can be linked to the main microscope or remain independent
- Integrated HD/SD video chain comprising a camera, 22" monitor and video recording via USB

### For the utmost precision

#### Innovative assistance functions<sup>1</sup>

■ View assistance functions such as Z ALIGN for aligning toric IOLs, K TRACK, Incisions/LRI, plus microscope settings directly in the eyepiece with IDIS<sup>2</sup>

"The depth of field, the contrast and the red reflex impress me time and again. With OPMI LUMERA 700, I know I can see every detail."

Cataract surgeon

### **Cataract surgery**

### Perfect visualization and straightforward operation

With OPMI LUMERA 700, even the finest anatomical details are clearly visible, and the red reflex is high in contrast and stable. Thanks to its revolutionary Stereo Coaxial Illumination (SCI) technology and legendary ZEISS optics, OPMI LUMERA 700 allows you to visualize the most minute detail, even under difficult situations like small pupils, so you can easily remove remaining cortex tissue in the capsular bag.

This sophisticated surgical microscope helps shorten procedure times and increase patient throughput. You can save individual workflow steps for specific working conditions and switch to them at a moment's notice. And with Deep-View, the depth-of-field management system, you can switch from maximum light transmission to maximum depth of field at the touch of a button.

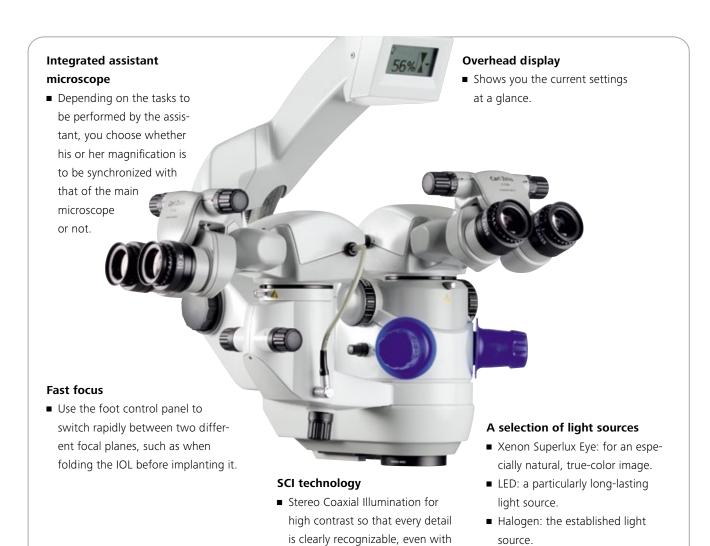


When used in combination with CALLISTO eye, OPMI LUMERA 700 also offers innovative tools such as Z ALIGN, which assists in aligning toric IOLs. These functions help maximize precision during surgery.

In addition to SCI illumination, OPMI LUMERA 700 boasts numerous features, such as an integrated keratoscope, which are tailored to the precise needs of the cataract surgeon. You can also use the fluorescent filter to inspect incisions and verify that they are tightly closed. For the utmost in patient safety, OPMI LUMERA 700 also includes built-in UV, IR and blue blocking filters plus a retina protection device, all of which are available for all three light sources.

SCI technology delivers revolutionary views of the eye. Even with advanced cataracts, the different structures of the anterior segment are clearly recognizable.





Integrated keratoscope

advanced cataracts.

 Visualize corneal curvature without interrupting the surgery to adjust equipment.



### **Retina surgery**

### Enjoy a superb view of the retina

OPMI LUMERA 700 and RESIGHT 700 fundus viewing system allow you – the retinal surgeon – to clearly recognize every detail of the retina. And as these products work together seamlessly, they offer unparalleled convenience in the OR. When RESIGHT is slid in, the microscope reacts by automatically adjusting the camera settings, Invertertube E settings, lighting and speed of motion to the correct values for retina surgery. You can also

save system settings for individual workflow steps in the surgery and activate them at a moment's notice during the surgery by using the foot control panel. This frees up the OR team, minimizes the potential for error and ensures efficient workflows in the OR. Switching between RESIGHT and the microscope image could not be simpler, as both systems use the same focal plane. So you no longer need to refocus the microscope.



The outstanding optical and transmission quality of both the microscope and RESIGHT means you see every detail of the retina.

<sup>&</sup>lt;sup>1</sup> Applies to RESIGHT 500 and RESIGHT 700.

"As the microscope and the fundus viewing system work together seamlessly, I no longer have to keep interrupting the surgery to bring the image into focus."

Retinal surgeon

#### Integrated slit illumination

■ Four slit widths and a slit direction of left or right. It simplifies membrane peeling and vitrectomy using a contact glass, without the issue of fitting extra accessories.

#### **Fast focus**

• Integrated fast focus function. This allows you to continue the operation quickly after moving the microscope, such as after introducing an endoscopic light source.

#### **RESIGHT** fundus viewing system

- **RESIGHT 700** for hands-free focusing via the foot control panel.
- **RESIGHT 500** for manual focusing.
- Long service life and low operating costs, as only a small number of the optical components need to be re-sterilized and re-prepared.
- Vario objective for uninterrupted work on the same focal plane
- Innovative lens turret for quick, convenient, sterile access to a second lens of a different magnification.
- Safety mechanism for optimal patient protection: the fundus viewing system immediately closes automatically if it accidentally touches the patient's eye.



"I can prepare OPMI LUMERA 700 for the next procedure with just a few movements. Even when switching between cataract surgery and retinal surgery."

Surgical nurse

### Workflow for teachers and presenters

Integrate everything you need into a single system, including the video chain

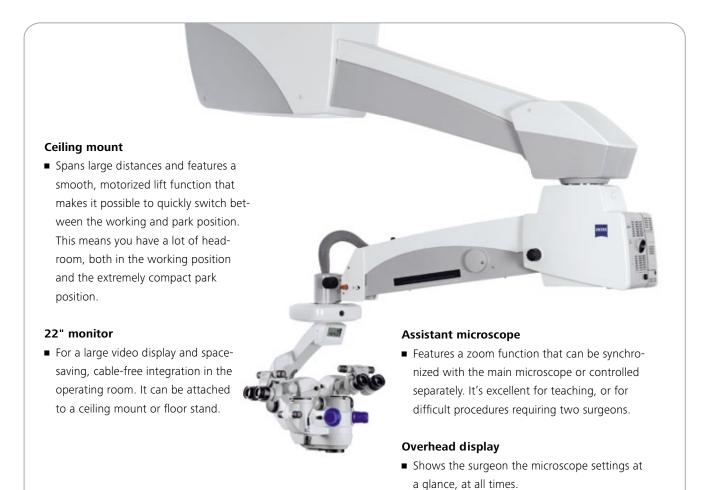
Now you can integrate a full HD or SD video chain comprising a camera, 22" monitor and video recording via USB into your surgical microscope. Whatever you decide, the results speak for themselves: high-quality video recording that shows the microscope's view of the operating field – ideal for teaching and presenting. You can also save videos to a portable storage medium quickly and easily, so you share recordings with others.

As the entire video chain is integrated into OPMI LUMERA 700, your workplace is free of

tiresome cables and accessories that need to be assembled or fitted to the microscope before they can be used. This sophisticated microscope gives you all the freedom you need and makes work easier for the entire OR team by supporting workflows in an intelligent way. You – the surgeon – can read the most important microscope settings at a glance on the overhead display. And your OR team can easily save the settings needed for different types of surgeries and activate them whenever needed.







#### Wireless foot control panel

 Freely configurable for every user, and ultra-tactile for intuitive operation.
 It has no annoying cables, so can be freely positioned in the OR.



#### Invertertube

■ This facilitates an upright, ergonomic posture, stress-free work and rapid changeover from cataract to retinal surgery and vice versa. Both an electrical and manual version are available.

"The superimposed assistance function help me carry out every step of a surgery with the utmost precision and give my patients the best vision possible."

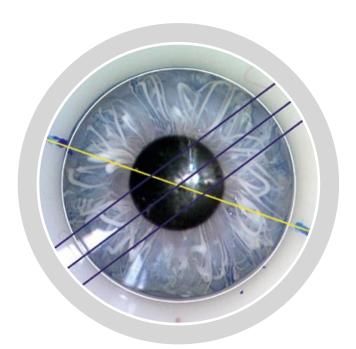
Surgeon

### **Assistance functions**

## Benefit from perfect support that ensures only the best results

OPMI LUMERA 700 works seamlessly with the CALLISTO eye assistance system. The CALLISTO eye touchscreen is suitable for use in sterile conditions and acts as a central interface to control the surgical microscope and view diagnostic images in the OR. CALLISTO eye also boasts innovative assistance functions that enable you to operate with maximum precision. So you can give your patients the best possible vision faster and more simply than ever before.

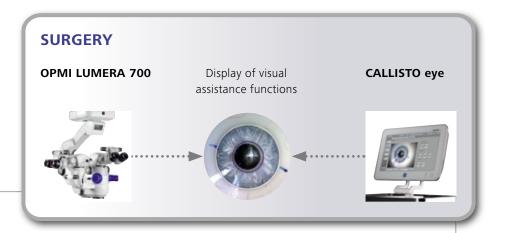
IDIS, the Integrated Data Injection System, displays visual assistance functions in the eyepiece of your OPMI LUMERA 700, so all the information you need is literally looking you in the eye. This avoids unnecessary head movements and means you can concentrate even more closely on the procedure.<sup>1</sup>



CALLISTO eye and IDIS from OPMI LUMERA 700 allow you to view visual assistance functions directly in the microscope eyepiece. This ensures maximum precision, such as when aligning toric IOLs.

<sup>&</sup>lt;sup>1</sup> If you already have OPMI LUMERA 700, you can upgrade it to include IDIS under certain conditions. CALLISTO eye and associated assistance functions are not available in the United States.





## INNOVATIVE ASSISTANCE FUNCTIONS



#### Incision/LRI assistant

Superimpose templates of individual, planned incisions and limbal relaxing incisions to ensure precise surgery.



#### **Rhexis assistant**

 Superimpose individually scalable rings to assist during capsulorhexis, so you can open the capsular bag safely and easily.

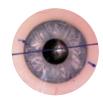


Track eye movements with CALLISTO eye. This ensures the position of the superimposed visual aids always stays the same in relation to the eye.



#### **Z ALIGN**

 Define reference and target axes and display them onscreen and in the eyepiece, ensuring you align toric IOLs safely and precisely.



#### K TRACK

 Visualize corneal curvature in combination with a keratoscope, so that you have the possibility of recognizing astigmatism without additional accessories.

#### View data in the eyepiece

 View superimposed assistance functions in the eyepiece, for stress-free, ergonomic work with fewer interruptions and head movements.

### A worthwhile investment

### Make a choice for the future

OPMI LUMERA 700 is the first step in creating an integrated OR workplace with a central control interface and a variety of assistance functions. Not only that, you can continue to upgrade and add to the system – making OPMI LUMERA 700 a valuable investment in the future. Wherever you work, OPMI LUMERA 700 brings benefits to your OR:

In hospitals where different operating teams use the same OR to perform anterior and posterior eye surgery, surgical staff benefit from a solution that's easy to use, flexible, and guarantees efficient patient processing.

And in ambulatory surgical centers with high patient throughput, both surgeons and patients can benefit from innovative devices representing outstanding quality, such as OPMI LUMERA 700.

Advanced teaching facilities can also benefit from OPMI LUMERA 700. Its sophisticated technology makes treating difficult cases easier, and the high-quality video and built-in assistant microscope are perfect for teaching and presenting.

#### Individual solutions

OPMI LUMERA 700 is flexible, can be fitted on a ceiling mount or floor stand, and supports individual configuration for different surgeries and surgeons. In other words, you can tailor it precisely for use in your outpatient clinic or OR.

#### **Premium quality**

At Carl Zeiss Meditec, we guarantee optical quality of the highest standards. And we never stop working to improve our products and see that they meet the highest technological standards, both now and in the future.

#### **Built-in upgradability**

You can upgrade OPMI LUMERA 700 and integrate it with tomorrow's devices at any time. This allows you to benefit from the latest innovations and stay up to date.