




## **OPMI LUMERA 700 from ZEISS**

A unique microscope for cataract  
and retina surgery



We make it visible.



The moment you can see every last  
detail with perfect clarity.

**This is the moment we work for.**

// OPMI LUMERA 700

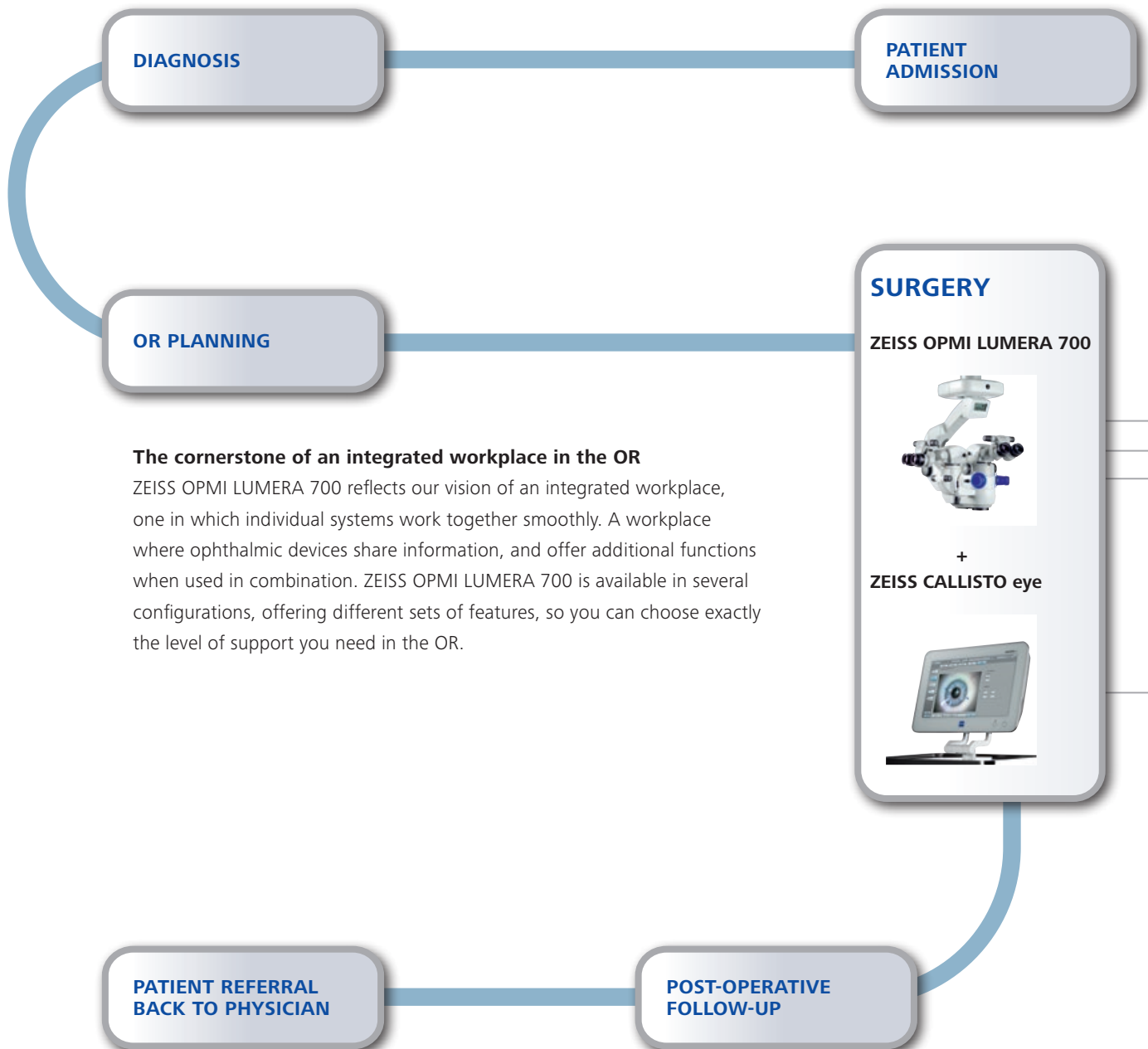
MADE BY ZEISS



# ZEISS OPMI LUMERA 700

For high performance in the OR

New operating techniques. High patient expectations. Rising cost pressures in the OR. You and your surgical microscope are facing more and more demands all the time. To provide you with optimal support during anterior and posterior eye surgery, OPMI LUMERA® 700 from ZEISS offers a big range of customization options as well as ZEISS optics.



## The cornerstone of an integrated workplace in the OR

ZEISS OPMI LUMERA 700 reflects our vision of an integrated workplace, one in which individual systems work together smoothly. A workplace where ophthalmic devices share information, and offer additional functions when used in combination. ZEISS OPMI LUMERA 700 is available in several configurations, offering different sets of features, so you can choose exactly the level of support you need in the OR.

<sup>1</sup> In combination with ZEISS CALLISTO eye®.

<sup>2</sup> Integrated Data Injection.



## For all cataract and retinal surgeons

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

### Simple to operate

- Configurable, wireless foot control panel
- See 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

### Unique view of the retina

- RESIGHT® Family from ZEISS fundus viewing system for clear and detailed visualization of the retina
- Invertube® from ZEISS for ergonomic sitting posture
- Workflow steps for predefining the system settings and camera settings you need
- Integrated slit illumination

## For an optimized workflow

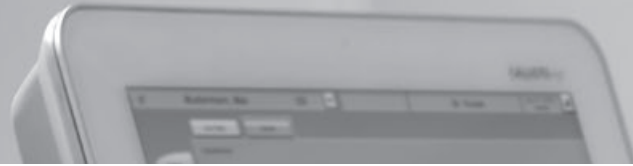
### Across-the-board integration for teachers and presenters

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

## For assistance

### 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>



## Cataract surgery

### Unique visualization and straightforward operation

With ZEISS 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, ZEISS OPMI LUMERA 700 allows you to visualize the most minute detail, even under difficult situations like small pupils, so you can easily see remaining cortex tissue in the capsular bag.



This sophisticated surgical microscope ensures high performance, so procedure times are shorter and patient throughput is higher. You can save individual workflow steps for specific working conditions and switch to them at a moment's notice. And with DeepView, 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 from ZEISS offers assistance functions that assist with the capsulorhexis, LRI incisions, IOL centration and toric IOL alignment. These functions ensure optimal support during surgery. In addition to SCI illumination, ZEISS OPMI LUMERA 700 boasts numerous features, such as an integrated keratoscope ring, 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. ZEISS 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 assistant microscope**

- Depending on the tasks to be performed by the assistant, you choose whether his or her magnification is to be synchronized with that of the main microscope or not.

### **Fast focus**

- Use the foot control panel to switch rapidly between two different focal planes, such as when folding the IOL before implanting it.

### **SCI technology**

- Stereo Coaxial Illumination for high contrast so that every detail is clearly recognizable, even with advanced cataracts.

### **Integrated keratoscope ring**

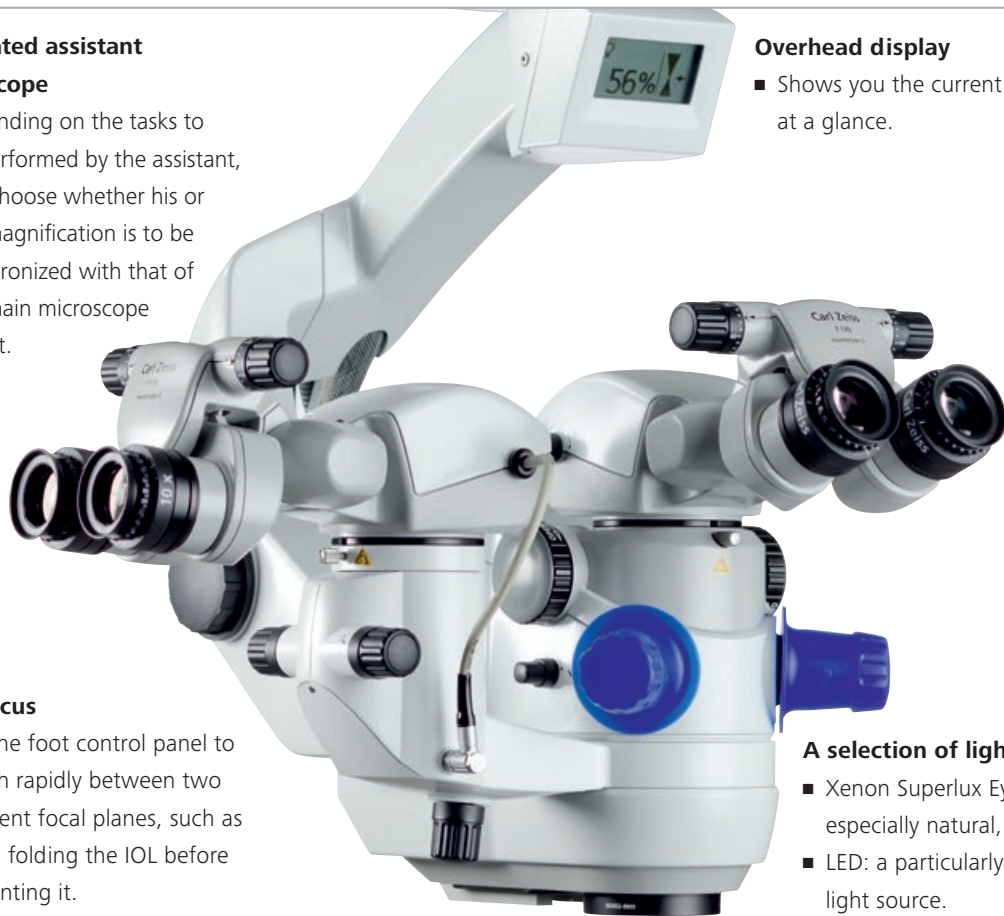
- Visualize corneal curvature without interrupting the surgery to adjust equipment.

### **Overhead display**

- Shows you the current settings at a glance.

### **A selection of light sources**

- Xenon Superlux Eye: for an especially natural, true-color image.
- LED: a particularly long-lasting light source.
- Halogen: the established light source.





## Retina surgery

Enjoy a superb view of the retina

ZEISS OPMI LUMERA 700 and the ZEISS 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 convenience in the OR. When ZEISS RESIGHT 700 is slid in, the surgical 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 ZEISS RESIGHT 700 and the surgical microscope image is easy, as both systems use the same focal plane,<sup>1</sup> so that you no longer need to refocus the surgical microscope.



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

<sup>1</sup> Applies to ZEISS RESIGHT 500 and ZEISS RESIGHT 700.



### Integrated slit illuminator

- Four slit widths and a slit direction of left or right. It simplifies membrane peeling and vitrectomy using a contact glass, without the hassle 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.

### ZEISS RESIGHT Family Fundus viewing system

- **ZEISS RESIGHT 700** for hands-free focusing via the foot control panel.
- **ZEISS 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.
- **Variable objective** for uninterrupted work on multiple focal planes.
- **Innovative lens turret** for quick, convenient, sterile access to a second lens of a different magnification.
- **Safety mechanism** the fundus viewing system closes automatically if it accidentally touches the patient's eye.



## 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 comprised of a camera, 22" monitor and USB recording into your surgical microscope. 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 can share recordings with others. As the entire video chain is integrated into ZEISS OPMI LUMERA 700, your workplace is free of

cables and accessories that need to be assembled or fitted to the surgical microscope before they can be used. This sophisticated surgical 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 see 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.





### Ceiling mount

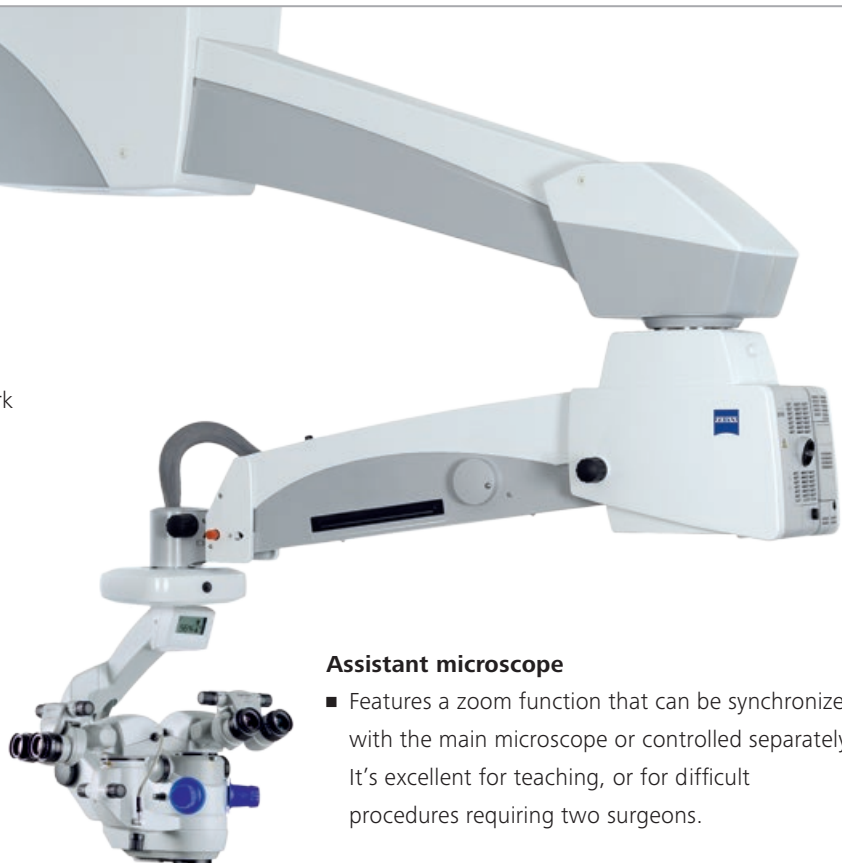
- Spans large distances and features a smooth, motorized lift function that makes it possible to quickly switch between the working and park position. This means you have a lot of headroom, both in the working position and the extremely compact park position.

### 22" monitor

- For a large video display and space-saving, cable-free integration in the operating room. It can be attached to a ceiling mount or floor stand.

### Wireless foot control panel

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



### Assistant microscope

- Features a zoom function that can be synchronized with the main microscope or controlled separately. It's excellent for teaching, or for difficult procedures requiring two surgeons.

### Overhead display

- Shows the surgeon the microscope settings at a glance, at all times.

### Invertertube and Invertertube E

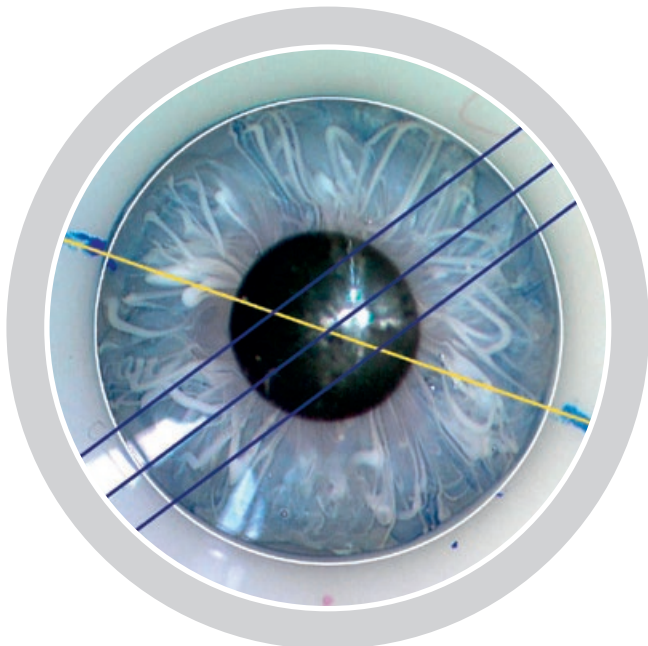
- This facilitates an upright, ergonomic posture, stress-free work and rapid changeover from cataract to retinal surgery and vice versa. Both an electrical and manual version are available.

## Assistance functions

Benefit from perfect support that ensures only the best results

ZEISS OPMI LUMERA 700 works seamlessly with the ZEISS CALLISTO eye computer assisted cataract surgery. The touchscreen is suitable for use in sterile conditions and acts as a central interface to control the surgical microscope and view OR images. It also boasts assistance functions that enable you to operate precisely.

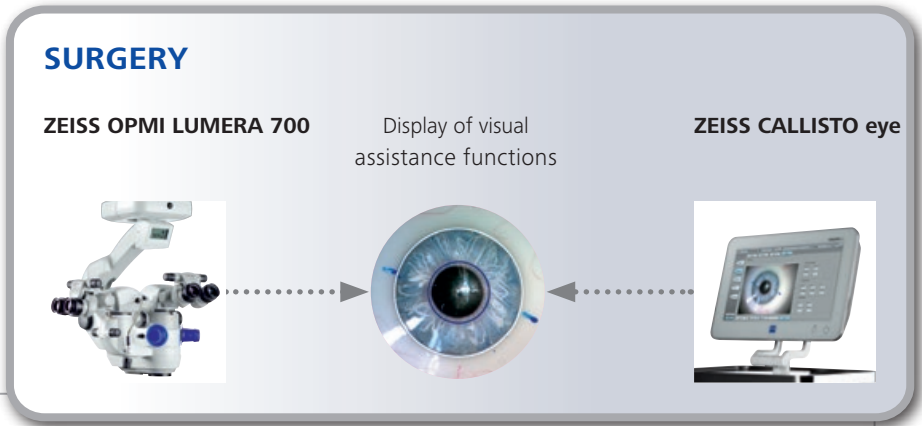
IDIS, the Integrated Data Injection System, displays visual assistance functions in the eyepiece of your ZEISS OPMI LUMERA 700, so all the information you need is literally looking you in the eye. This avoids unnecessary head movements and means you can concentrate even more closely on the procedure.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



*ZEISS CALLISTO eye and IDIS from ZEISS OPMI LUMERA 700 allow you to view visual assistance functions directly in the microscope eyepiece. This ensures precise\* toric IOL alignment.*

<sup>1</sup> If you already have ZEISS OPMI LUMERA 700, you can upgrade it to include IDIS under certain conditions.

\* Without clinical difference to one of the most accurate manual marking procedures (clinical study data on file)



### ASSISTANCE FUNCTIONS



#### Incision/LRI assistant

- Superimpose templates of planned incisions and limbal relaxing incisions for surgery.

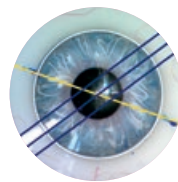


#### Rhexis assistant

- Superimpose scalable rings to assist achievement of the capsulorhexis of optimal size and shape.<sup>5</sup>

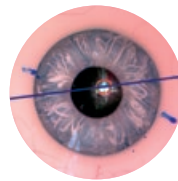
#### Eye tracking

- Track eye movements with ZEISS CALLISTO eye. This ensures the position of the superimposed assistance functions are adjusted in real-time to take eye movement into account.



#### Z ALIGN

- Reference and target axes on screen and in the eyepiece support precise\* alignment for toric IOLs.<sup>4</sup>



#### K TRACK

- Visualize corneal curvature in combination with a keratoscope.

#### View data in the eyepiece

- View superimposed assistance functions in the eyepiece of the surgical microscope so you gain the clinical benefits of the graphical overlays without needing to look away from the surgical field.

<sup>4</sup> Lackerbauer, C. Modern Solutions for Refractive Cataract Surgery: CALLISTO eye. Cataract & Refractive Surgery Today. February, 2013.

<sup>5</sup> Findl, O. Intraoperative alignment of IOL and control of rhexis size using a modified operating microscope. Cataract & Refractive Surgery Today. March, 2012

\* Without clinical difference to one of the most accurate manual marking procedures (clinical study data on file)



// CONFIDENCE  
MADE BY ZEISS

## **A worthwhile investment**

### Make a choice for the future

ZEISS 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 ZEISS OPMI LUMERA 700 a valuable investment in the future. Wherever you work, this surgical microscope 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.

#### **Individual solutions**

ZEISS 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**

ZEISS guarantees 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.

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



Advanced teaching facilities can also benefit. Its sophisticated technology makes treating difficult cases easier, and the high-quality video and built-in assistant microscope is beneficial for teaching and presenting.

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

Upgrades and future developments can be integrated under certain conditions. This allows you to benefit from the latest innovations and stay up to date.

# Technical data

## OPMI LUMERA 700 from ZEISS

ZEISS OPMI LUMERA 700	
<b>Surgical microscope</b>	Motorized zoom system with apochromatic lens, zoom ratio 1:6 Magnification factor $\gamma = 0.4x-2.4x$ Focusing: electric / motorized, Focus range: 70 mm Objective lens: $f = 200$ mm (optionally also $f = 175$ mm or $f = 225$ mm with support ring) Binocular tube: Invertertube E (optionally also Invertertube, 180° swivel tube, $f = 170$ mm, inclined tube, $f = 170$ mm) Wide-angle eyepiece 10x (optionally also 12.5x)
<b>Light source</b>	SCI: Coaxial and full-field illumination (patent pending) Fiber optic illumination 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 illumination Superlux® Eye: – Xenon short arc reflector lamp with HaMode filter – Backup lamp in lamp housing, can be slid into position manually LED fiber optic illumination: – 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
<b>Slit lamp</b>	Slit widths: 0.2 mm, 2 mm, 3 mm, 4 mm Slit height: 12 mm
<b>XY coupling</b>	Travel range: max. 61 mm x 61 mm Automatic centering at the touch of a button
<b>Video monitor</b>	22" LCD display Resolution: 1,680 x 1,050
<b>Stand</b>	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
<b>Compliance</b>	 

### ZEISS RESIGHT Family

<b>Mechanical data</b>	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°
<b>Lenses included</b>	60 D, 128 D
<b>Weight</b>	ZEISS RESIGHT 500 (manual): 0.45 kg ZEISS RESIGHT 700 (motorized): 0.50 kg
<b>Safety range</b>	At least 110 mm

### FCP-WL wireless foot control panel

<b>Power supply</b>	3 x 1.5 V Baby C batteries, alkaline manganese
<b>Transmission frequency</b>	2,402 ... 2,480 MHz
<b>Battery life</b>	Around 2–6 months depending on how much the foot control panel is used







The moment innovation and passion  
lead to the best vision for your patient.

**This is the moment we work for.**

// OPTHALMIC SOLUTIONS  
MADE BY ZEISS



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