# **Streamlining your performance.**

Carl Zeiss

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### **ZEISS OPMI Sensera**



Seeing beyond



### Ease of use

Since ZEISS introduced the first surgical microscope in 1953, the field of otorhinolaryngology has been at the forefront of microsurgery. In collaboration with surgeons, ZEISS has developed trend-setting visualization solutions, providing the functionalities ENT surgeons expect.



OPMI Sensera<sup>®</sup> from ZEISS enables the surgeon to effortlessly move the system into a comfortable position for performing ear, nose, or throat surgery. At the push of a button, the innovative balancing system ensures that the microscope is perfectly balanced, even when equipped with maximum accessories.

#### For the ear, precision is key

ZEISS OPMI Sensera is optimized for the delicate and precise techniques demanded for surgical ear procedures. This surgical microscope offers a flexibility in positioning that also ensures high comfort for the extreme approaches often required for skull base surgeries.

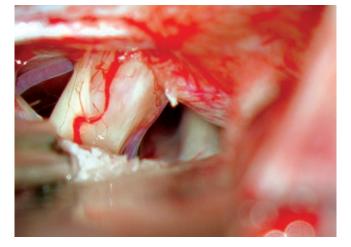
#### Just follow your nose

Varioskop® optics, combined with the tiltable tube, enable the surgeon to maintain an ergonomic posture, particularly in paranasal sinus surgery, where the working distance changes frequently. Surgeons can also refocus at the push of a button and easily adjust the spot size of the illumination to see down narrow nasal passages.

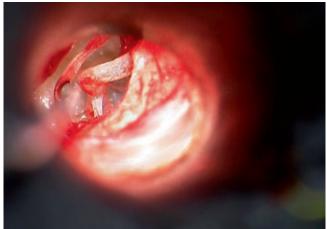
#### Preserving functionality in throat procedures

CO<sub>2</sub> lasers are often used in surgery on the larynx. Because it is so compact, ZEISS OPMI Sensera makes it possible to operate comfortably while achieving the necessary approach angles for laser microsurgery. The optional external fine focus allows surgeons to synchronize the focus of the surgical microscope and the laser without disrupting the procedure.

### **Optical excellence**



Acoustic neuroma. Source: Gruppo Otologico-Piacenza, Prof. Dr. Sanna



Left middle ear approach for stapes procedure. Source: Barrow Neurological Institute, Dr. Peter A. Weisskopf

As demands continue to grow in ENT surgery, quality optics and what they provide in terms of image quality, resolution, and color rendition become much more important. A Varioskop that provides a working distance of 200 – 415 mm coupled with the 1:6 zoom system ensures that the apochromatic optics of ZEISS OPMI Sensera can readily accommodate any surgical application in ENT. The Superlux<sup>®</sup> xenon illumination ensures that the finest details are visible in true color.

### Focused images at the push of a button

The video system with SpeedFokus simplifies procedures by quickly and precisely focusing the optics at the push of a button. The surgical workflow becomes more efficient as surgeons completely concentrate on the treatment. Manual, time-consuming focusing is a thing of the past.

#### **Complete documentation**

ZEISS provides the entire chain of video components from co-observation to documentation. The 1Chip HD Camera is optimally aligned with ZEISS apochromatic optics and enables the display of high-definition images with high color fidelity during surgical procedures to further enhance the clinical workflow. The handgrip allows the rapid capture of highresolution still images and videos for documentation and scientific presentation. To support efficient data handling, digital images can be automatically stored to a network.

### Adaptability is key

Combined with ZEISS OPMI Sensera, laser micro-manipulators permit the use of different, easily mounted lasers.

### Integration

Clean design lines, form, and functionality define the ZEISS OPMI Sensera. Internal zoom and focus, Superlux xenon illumination, and the optional, workflow-integrated HD video chain are internalized, eliminating cable clutter and potential cable damage while making it easier to clean.



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## **Options**

Thanks to the ZEISS building block principle, OPMI Sensera from ZEISS can be easily configured with the accessories required for different procedures.

### Ergonomic design and operating comfort



Foldable Tube f170/f260 allows for a wide range of comfortable working positions.

### **Optics and illumination**



High-performance xenon illumination for high demands and professional documentation.



The stereo co-observation tube ensures that the assistant also enjoys a crisp, brilliant image.



VisionGuard<sup>®</sup> drape lens for genuine optical ZEISS quality in sterile working environments.

### **Digital visualization**



1Chip HD Camera with apochromatic video optics.





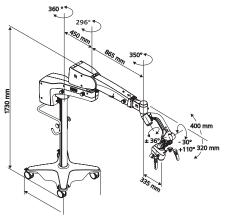
Interface for integration of conventional laser micromanipulators.

## **Technical data**

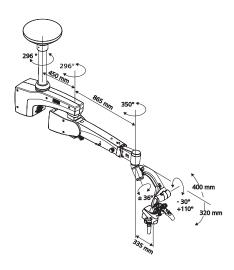
### S7 / OPMI Sensera® from ZEISS

Magnification	Motorized ZEISS zoom, 1:6 ratio,	-
Magnification	adjustable via handgrips or foot control	
	panel	
Eyepieces	10x wide-field eyepieces	
-) -) -) -) -) -) -) -) -) -) -) -) -) -	12.5x wide-field eyepieces	
Tubes	Tiltable Tube 0 – $180^\circ$ , f = 170 mm	
	Straight Tube, $f = 170 \text{ mm}$	-
	Foldable Tube f170/f260, including	
	PROMAG function for additional 50 %	
	magnification and integrated rotate	
	function	
Focus	Internal, motorized, continuously	
	adjustable, triggered via handgrip or	
	foot control panel	
	SpeedFokus	
Illumination	Superlux 180 W xenon light source	•
	100 W halogen illumination	
System operation	Multifunctional programmable	
	handgrips	
	Wired 14 functions foot control panel	
	Wireless 14 functions foot control panel	
Suspension systems	Floor stand	•
	Ceiling mount with rigid column	
	Ceiling mount with lifting column	
Video	1Chip HD Camera	
	HD video recorder	
	HD monitors	
	Adaptation of consumer (SLR)	
	photo/video camera	
Laser attachment	Interface for laser micro-manipulator	•
Other options	Stereo co-observer	
	External motorized fine focus device for laser use	
	OPMI Drapes sterile with VisionGuard®	
	lenses	
	Sterilizable asepsis caps	
	Instrument tray on floor stand	

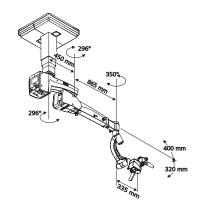
■ Standard □ Option



S7 Floor stand



S7 Ceiling mount with rigid column



S7 Ceiling mount with lifting column

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Carl Zeiss Meditec AG Goeschwitzer Strasse 51-52 07745 Jena

Germany www.zeiss.com/sensera www.zeiss.com/med/contacts

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