

# **OPMI Sensera/S7 System**

## **Step into the light**





"red dot" award for high design quality: in an international competition for product design, OPMI Sensera impressed the jury with its high degree of innovation, excellent functionality and superb ease of use.

**reddot design award**  
winner 2003

# *Ease of use*

## **Always a step ahead**

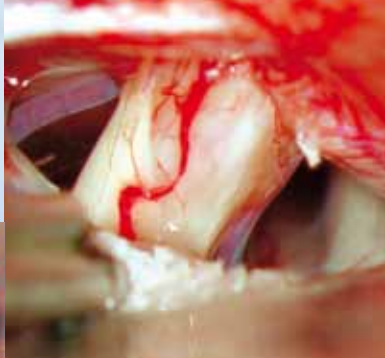
Since the introduction of the first surgical microscope in 1953, the field of otorhinolaryngology has been at the forefront of microsurgery. For over 50 years Carl Zeiss, in collaboration with surgeons, has strived to produce the best possible visualization solutions, thereby helping surgeons improve the quality of life for countless patients.

With its effortless mobility, OPMI® Sensera®/S 7 delivers maximum operating comfort for procedures on the ear, nose or throat. At the push of a button, the innovative balancing system places the surgical microscope in the correct position – even when equipped with maximum accessories.



*Clear lines and precise form  
signal a new era in ENT surgery*

*Below: Papillomatosis of the left vocal cord region. Source: Hannover School of Medicine, Prof. Dr. Th. Lenarz*



*Above: Acoustic Neuroma.  
Source: Gruppo Otologico-Piacenza,  
Prof. Dr. Sanna*

### **For the ear, precision is key**

The OPMI Sensera / S 7 system is specifically optimized for the delicate and precise techniques demanded in procedures on the ear. OPMI Sensera also ensures maximum comfort for the complex configurations required for performing skull-base surgery.

### **Just follow your nose**

Varioskop® optics, combined with the inclinable binocular tube, enable the surgeon to maintain a comfortable position, particularly in paranasal sinus surgery, where the working distance changes frequently. Refocusing is as simple as pushing a button and surgeons also have the ability to 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 unbelievably compact, OPMI Sensera makes it possible to operate comfortably – even in extreme positions. The optional external finefocus from OPMI Sensera allows surgeons to synchronize the focus of the surgical microscope and the laser without disrupting the procedure.





# *Optical Excellence*

## **Optics at their best**

What better support could Carl Zeiss offer surgeons than legendary ZEISS optics? As demands continue to grow, it is becoming that much more important for surgeons to be able to rely on the extraordinary image quality, improved resolution and outstanding color rendition delivered by apochromatic optics. A Varioskop that provides a working distance of 200–415 mm coupled with the well-known 1:6 ZEISS zoom system ensures that

these optics can always be used comfortably. The integrated Superlux® 180 xenon illumination ensures that the finest details are also visible in true color.

## **SpeedFokus™ at the push of a button**

SpeedFokus generates a crisp image within a matter of seconds. This innovative autofocus system simplifies procedures with its automatic, fast and precise focusing at the push of a button. Workflows become more efficient as surgeons can completely concentrate on the treatment. Manual, time-consuming focusing is a thing of the past.



*Form and function redefined*



### **Ease of documentation**

ZEISS provides outstanding video solutions for documentation and co-observation. The camera portfolio ranges from the integrated 1 CCD standard-definition camera MediLive® Primo to the easily attachable 3 CCD high-definition camera TRIO 610. Combined with MEDIALINK™ 100, pictures and videos can be immediately captured and recorded for further processing.

*Ergonomic handgrips include four programmable buttons in addition to zoom and focus controls.*

### **Adaptability is key**

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



# Perfect Integration



## Noticeable convenience

Clearly designed lines, form and functionality define the OPMI Sensera/S7 System. No expense was spared to make convenience possible, yet invisible. Internal zoom and focus, the Superlux 180 Xenon illumination, and the optional integrated 1CCD camera MediLive Primo are all built in and hidden from view, thus eliminating bothersome cable clutter that can affect the movement of the microscope and make it easier to clean.

## Feather-light maneuverability

The floorstand has four freely rotating casters that facilitate easy movement during repositioning in the OR

or for transfer between different rooms. OPMI Sensera is also available on the S7 ceiling mount with a fixed height column or an optional power column.

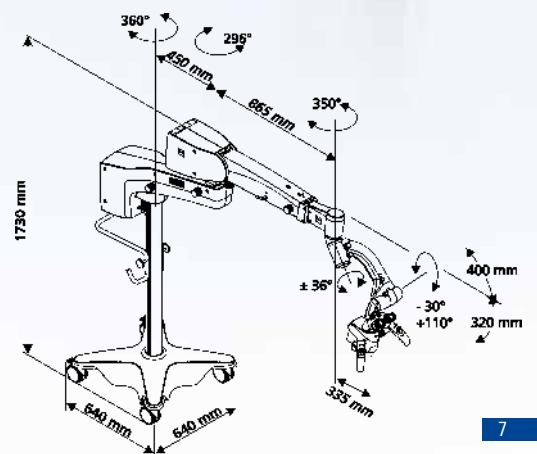
## Individual settings

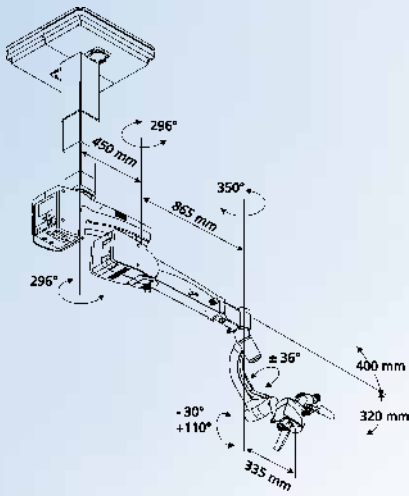
In today's increasingly crowded ORs, OPMI Sensera easily and quickly adapts to the varying procedural needs of the ENT surgeon. The touch of a button on the S7 graphic interface quickly configures an optimized setup for ear, nose or throat surgery. Plus, three surgeons can store their personal preferences for magnification, focus and illumination.

At Carl Zeiss we view it as our responsibility to not just recognize new surgical trends, but to provide solutions that seamlessly and comfortably enable surgeons to apply and evolve these new techniques. Our goal is to provide surgeons with instruments that will help them to perform procedures that improve outcomes and the quality of life for patients around the world. And this is exactly what OPMI Sensera will do.



*The outstanding features of the S7 ceiling mount include not only its precise positioning above the operating table, but also the ample headroom provided in its standby position by the optional power column.*





## Technical Data

### OPMI Sensera

**Magnification** Motorized ZEISS Zoom, 1:6 ratio, adjustable via handgrips or foot control panel.

**Focus System** (Varioskop) Internal, motorized, continuously adjustable. Triggered via handgrip or foot control panel.

**SpeedFokus** – optional autofocus system

**Working Range** 200–415 mm

### Main Binocular Tube

Inclinable 0-180° f = 170 mm or f = 200 mm with 12.5x or 10x wide-angle eyepieces.

### S7 Floorstand and Ceiling Mount

**Line Voltage** 115 / 230 V  $\pm 10\%$

**Frequency** 50-60 Hz

**Power Consumption** Max. 115 V, 10 A

Max. 230 V, 8 A

**Line Protection** Automatic Circuit Breaker

### Weight

Floorstand: Approx. 165 kg (complete with OPMI)

Ceiling Mount: Approx. 120 kg (complete with OPMI)

### Optional Power Column of the S7 Ceiling Mount



### Superlux 180 Light Source

#### Main and Backup Illumination

180 Watt Xenon daylight lamp via light guide in fast action lamp changer.

# S e n s e r a



*Impressive details &  
perfect balance*



*The amazing line of ENT  
microscopes and loupes  
from Carl Zeiss:*

1. OPMI 1FC/S 100 system
2. OPMI Vario/S88 system
3. OPMI Pentero\* system
4. EyeMag\* loupes
5. OPMI Movena/S 7 system
6. OPMI pico/S 100 system
7. OPMI Sensera / S7 System

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