# Perfecting your art.

**ZEISS EXTARO 300** 



Seeing beyond

zeiss.com/dentistry/extaro-300



# **ZEISS EXTARO 300**

Visualize Beyond

Are you constantly looking for ways to elevate and differentiate your practice from mainstream dental providers? At ZEISS we know the challenges you face when you are aiming for the highest levels of performance and results – both functionally and aesthetically.

EXTARO<sup>®</sup> 300 from ZEISS provides breakthrough visualization modes that introduce new applications to microdentistry. From more efficient caries detection to a simpler tooth restoration workflow, ZEISS EXTARO 300 is poised to revolutionize and differentiate your practice.





# **Augmented Visualization**

# Repair caries-infected fillings efficiently

The Fluorescence Mode in ZEISS EXTARO 300 helps you to identify caries margins to allow preservation of as much healthy tooth substance as possible. As the first device combining caries detection technology<sup>1</sup> with optical magnification, the Fluorescence Mode in ZEISS EXTARO 300 supports detection of carious tooth substances.

Identification of suspected carious tissue/lesions under microscope visualization saves precious time.



Fluorescence Mode before treatment.



Fluorescence Mode after treatment.

Images courtesy of Dr. Tomas Lang, Essen, Germany

<sup>1</sup> Jahrbuch der Endodontie 2017, Marktübersicht Mikroskope, OEMUS Verlag





# **Augmented Visualization** Differentiate tooth material

The Fluorescence Mode in ZEISS EXTARO 300 also supports you in distinguishing natural hard tooth tissue from the most widely used dental composite resin<sup>2</sup>. Using this clear visual differentiation will help you to target the affected area quickly, saving you valuable chair time during treatment.



Fluorescence Mode



Magnified view

Images courtesy of Dr. Tom Schloss, Nuremberg, Germany

<sup>2</sup> For specifications see user manual



# **Augmented Visualization**

Treat without distractions

# Analyze and restore teeth without distracting reflections.

As the first device to combine polarized illumination with magnification<sup>3</sup>, the NoGlare Mode in ZEISS EXTARO 300 supports you to precisely analyze the color shades of a tooth. The cross-polarization capability visualizes fine, but relevant details such as color nuances. It effectively suppresses obtrusive light reflections from the tooth surface.

# Prevent premature composite curing while working in a more natural light environment.

Similar to the existing Orange Color Mode, the TrueLight Mode<sup>4</sup> in ZEISS EXTARO 300 does not cause premature polymerization of widely-used, contemporary light curing composites under the microscope, giving you more time to finish complex modeling tasks. The optimized color balance of the TrueLight Mode now allows you to identify relevant dental tissues in a more natural white-light setting.



Magnified view

Images courtesy of Oscar Freiherr von Stetten, Stuttgart, Germany

- <sup>3</sup> Jahrbuch der Endodontie 2017, Marktübersicht Mikroskope, OEMUS Verlag
- <sup>4</sup> For specifications see user manual



Filling composite using the TrueLight Mode

![](_page_7_Picture_13.jpeg)

Modeling of composite using the TrueLight Mode

![](_page_8_Picture_0.jpeg)

# **Digital Patient Communication**

Benefit from a digital workflow

The integrated HD camera of ZEISS EXTARO 300 records wirelessly to the ZEISS Connect App, from where images and videos can be directly transferred to your local network.

# Easily educate your patients and show them the value of your work.

ZEISS EXTARO 300 innovates patient interaction. With the ZEISS Connect App, you can show images of past and current patient conditions and highlight areas requiring treatment, enabling your patients to make informed decisions.

![](_page_9_Picture_5.jpeg)

![](_page_10_Picture_0.jpeg)

# **Single-Handed Operation**

Experience an uninterrupted workflow

With only one finger, you can reach the multifunctional Mode Control to activate all visualization and capture modes as well as the light settings. From the same hand position, you can adjust the focus without leaving your preferred ergonomic working position.

![](_page_11_Picture_3.jpeg)

Activating the Visualization and Capture Modes and light settings

![](_page_11_Picture_5.jpeg)

Activate all the Visualization Modes described before to augment your vision and introduce new applications to microdentistry.

Use the Capture Mode to record videos and images for documentation purposes and to educate your patients. This helps them make an informed decision and value your expertise.

![](_page_11_Picture_8.jpeg)

Operating the Varioskop 230

Use the Varioskop<sup>®</sup> 230 to adjust the focal length to focus on the whole oral cavity and on minute details in the vertical axis.

Control all light settings to adjust the brightness as well as the motorized SpotLight diameter for a focused treatment. Your patient and assistant will not be bothered by unnecessary light while using a long working distance.

![](_page_12_Picture_0.jpeg)

# **Technical Data** EXTARO 300 from ZEISS

		רידים בידים ביד מסובים בידים בידי	Essential	Classic Plus	Premium Dental
Magnification System	Manual 5-step apochromatic magnificatior	ר changer	•	•	•
Eyepieces	12.5x widefield eyepieces	without reticle	•	•	•
		with reticle			
	10x widefield eyepieces	without reticle			
		with reticle			
Tube	180° tiltable tube		•	•	•
Focus	Varioskop 230, working distance 200-430	) mm	•	•	•
Illumination System	TriLED, 5500 K		•	•	•
	LightBoost – Xenon equivalent light intens	ities⁵	0	•	•
	Orange Color Mode				
	Green Color Mode				
Augmented Visualization	Upgradable kit (mandatory for Augmented Visualization Modes)				•
	Fluorescence Mode		0	0	
	TrueLight Mode				
	NoGlare Mode				0
User Interface	Ergonomic handgrip				•
	Mode Control				
	Single finger adjustable illumination, focus and SpotLight (motorized aperture control)				
Communication	Essential: Integrated HD camera with recording on USB; HDMI output				-
	Complete: Integrated HD camera with recording on USB or wireless recording to the ZEISS Connect App; network integration available for archiving purposes; HDMI output				
	DICOM				
	Adapter for digital cameras (Full-frame or APS-C)				
Ergonomics	Foldable Tube f170/f260 including the PRC for a detailed view	MAG function boosts to 150 % magnification	0	0	0
	MORA Interface – remain in an upright	with documentation port		•	
	position regardless of the angle of view:	without documentation port			•
	Straight coupling (compatible with all susp	ension systems)		0	0
Asepsis	Asepsis Starter Kit with high quality splash covers for Varioskop, Mode Control, magn	protection for the objective lens and resterilizable ification changer and PD adjustment	0	0	0
	Drape Starter Kit				0
Suspension System	Floor stand				•
	Floor mount				
	Ceiling mount		0	0	0
	Wall mount				0

● Basic configuration O Package options □ Add-ons

#### Suspension System Options<sup>6</sup>

Floor stand with short suspension arm, MORA Interface and Foldable Tube f170/f260

Floor mount with long suspension arm, with MORA Interface and Foldable Tube f170/f260 (see drawing); also available with short suspension arm

![](_page_14_Figure_3.jpeg)

![](_page_14_Figure_4.jpeg)

Ceiling mount with long suspension arm, with MORA Interface and Foldable Tube f170/f260 (see drawing); also available with short suspension arm Wall mount with long suspension arm, with MORA Interface and Foldable Tube f170/f260 (see drawing); also available with short suspension arm

![](_page_14_Figure_7.jpeg)

<sup>6</sup> Treatment unit integration option also available. All data are measured internally with possible deviation due to different measuring method or tool. For specifications see user manual.

![](_page_14_Figure_9.jpeg)

# CE

EXTARO 300

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**ZEISS Connect** 

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en-INT\_30\_010\_0300VIII Printed in Germany.

![](_page_16_Picture_0.jpeg)

# **OPMI PROergo from ZEISS**

Comfort and precision

![](_page_16_Picture_3.jpeg)

# ZEISS OPMI PROergo

Comfort and precision

The legendary optics of ZEISS surgical microscopes allow you to visualize details and fine structures, therefore enhancing the quality of your examination and treatment in all dental disciplines. They provide you with clear visibility of regions that are otherwise difficult to view. The ergonomic design of the OPMI PROergo<sup>®</sup> facilitates a comfortable working position and helps prevent back and neck pain.

OPMI PROergo from ZEISS is excellence at your fingertips. It offers a variety of convenient, motorized functions that support effortless handling and mechanical stability. The virtually free-floating system allows smooth and precise in an appealing, sleek and compact 8. design. 4. 10. 57 2

![](_page_18_Picture_0.jpeg)

#### 1. Motorized Varioskop

At the push of a button focus on the treatment field within a working distance of 200-415 mm for a better and comprehensive overview – all without having to move the OPMI or change your position.

# 2. Motorized zoom

Continuous magnification. The brightness setting adjusts automatically as you increase or decrease magnification levels.

# 3. Magnetic clutches

The Free Float Magnetic System offers smooth movement and precise, stable positioning. The push of a button on the handgrip releases the magnetic brakes.

### 4. Ergonomically designed handgrips with function keys

Control the focus and zoom and set the other configurable function buttons to operate brightness and SpeedFokus to control video recording.

### 5. Angled optics and tube dovetail

For work on difficult-to-reach areas.

## 6. Foldable Tube f170/f260

For an ergonomically correct posture, even with extremely angled positions. Boosts to 150 % detail magnification with the PROMAG function.

## 7. Stereoscopic image

Large visual field with widefield eyepieces (12.5x or 10x). Special diopter settings also make them suitable for eyeglass wearers.

### 8. Xenon illumination

This provides homogenous, high-contrast illumination of the treatment field and offers a light temperature characteristic of natural daylight. Two xenon lamps are included in the quick-change module.

### 9. 1Chip HD Camera

High definition for your patient consultation and documentation.

#### 10. Control console

Default settings such as light, zoom or magnification can be personalized and stored for various users, making clinical transitions quick and easy.

![](_page_19_Picture_0.jpeg)

# See more – treat more

ZEISS OPMI PROergo enables you to view regions that are otherwise difficult to see. The coaxial illumination directs light to where it is needed. Even very narrow root canals are effectively illuminated and visualized.

#### Automatic brightness control

The brightness settings adjust automatically as you decrease or increase magnification levels to view the entire oral cavity or fine anatomical structures.

# Change the focus without moving

The built-in Varioskop® provides a large field of view at each magnification and improves orientation in the horizontal axis.

#### High-performance xenon illumination

For even the highest demands and professional documentation, the shadow-free illumination directs light to exactly where it is needed. Even root canals are perfectly illuminated and imaged.

#### **Flexible precision optics**

The Foldable Tube f170/f260 combines brilliant apochromatic optics and a unique design for high visualization flexibility. It offers dentists a wide range of magnification potential – even at extreme approach angles.

![](_page_19_Picture_11.jpeg)

> Image courtesy of Dr. Bijan Vahedi, Augsburg, Germany

# Comfort and easy handling – for your own health

Sit comfortably in an upright, ergonomically correct position during treatment for a more relaxed working day. ZEISS OPMI PROergo helps prevent the early onset of fatigue as well as neck and back problems.

# ZEISS OPMI adapts to you, not vice versa

The motorized Varioskop is already integrated into your ZEISS OPMI PROergo. With its long reach, this highly flexible system easily accommodates your needs and different positions of your patient. Foldable Tube f170/f260 offers a wide range of comfortable working positions by reducing or increasing the distance to the required treatment field.

# Functional, motorized and ergonomic design

Control the focus and zoom and set the other configurable function buttons to operate brightness and SpeedFokus. The treatment field is focused at the push of a button without having to move ZEISS OPMI PROergo or change your working position.

![](_page_20_Picture_6.jpeg)

Foldable Tube f170/f260

# Balance and brake – for effortless and precise positioning

By unlocking the magnetic clutches on the handgrip, you can maneuver ZEISS OPMI PROergo easily into the desired working position – even if additional accessories such as the co-observation tube and photo adapter with SLR camera are simultaneously connected.

#### Free Float Magnetic System

You can unlock the magnetic brakes with the push of a button on the handgrip. The OPMI PROergo can then be maneuvered into the desired working position. The system locks back into place once the button is released. The system can compensate for accessories weighing up to 14 kg such as an optical co-observation tube or a photo adapter with camera. By unlocking the magnetic clutches on the handgrip, you can maneuver ZEISS OPMI PROergo effortlessly and precisely into the desired position and orientation. After the handgrip has been released, the brakes are locked automatically to ensure that the position remains stable and secure.

![](_page_20_Picture_12.jpeg)

Photo adapter for SLR cameras (f=340 mm)

![](_page_20_Picture_14.jpeg)

Co-observation tube and 1Chip HD Camera (1080p)

![](_page_20_Picture_16.jpeg)

# Digital visualization – for greater clarity in your daily patient consultations and scientific presentations

# A picture is worth a thousand words:

Patients ask for detailed information to help them understand the examination, courses of treatment and the expected outcomes. Clear images and videos are extremely valuable to enhance your patient's understanding and acceptance.

![](_page_21_Picture_3.jpeg)

1Chip HD Camera (1080p)

#### **Digital visualization in HD**

The video camera for ZEISS OPMI PROergo allows you to visualize your surgical microscope images in state-of-art, full HD picture quality. Beneficial for coobservation or scientific presentations, this enables you to display the teeth and tissue structures with finer detail than with standard definition cameras. High contrast and ideal image definition are ensured through the built-in ZEISS apochromatic video optics. The camera starts with a pre-defined configuration and is therefore instantly ready to use with the surgical microscope.

# Seamless workflow integration for video and still images

Combining the video camera with the HD video recorder allows you to digitally save your high-quality images. With the push of a button on the handgrip of the surgical microscope you can save video or still images to a USB storage device or automatically transmit them to a network storage system.

#### **Digital photography**

It is also optionally possible to attach digital cameras to the surgical microscope. ZEISS can provide you with a variety of camera adapters including SLR cameras, FlexioStill for digital cameras and FlexioMotion for digital camcorders.

![](_page_21_Picture_11.jpeg)

**Restorative dentistry** Quickly detect enamel and dentine fractures as well as approximal caries. High-precision views enable accurate assessment of crown edges, preparation levels and veneers.

> Image courtesy of Dr. Alessandro Conti, Alessandria, Italy

![](_page_21_Picture_14.jpeg)

Endodontics

Visualize fine anatomical structures and details of root canals and isthmuses. The visibility provides a clear view down to the apex.

> Image courtesy of Oscar Freiherr von Stetten Stuttgart, Germany

![](_page_21_Picture_18.jpeg)

Implantology

Conduct high-precision examinations and implant treatments quickly and confidently. Reliably detect important anatomical structures.

Image courtesy of Dr. Rino Burkhardt Zurich, Switzerland

![](_page_21_Picture_22.jpeg)

#### Periodontics

Benefit from support for soft-tissue evaluation and management to aid healing, low scarring and improved cosmetic outcomes.

Image courtesy of Dr. Rino Burkhardt Zurich, Switzerland

# Enhancing treatment and comfort.

ZEISS OPMI PROergo

// INSPIRATION MADE BY ZEISS

# **Technical data** S7/OPMI PROergo from ZEISS

#### S7 / OPMI PROergo

Magnification	Motorized zoom system; with apochromatic 1:6 ratio;	•
system	magnification factor $Y = 0.4x-2.4x$	
Focus	Continuous motorized focusing via Varioskop	٠
	Focusing range of 200-415 mm	٠
	SpeedFokus only in combination with the video camera	0
Operating	Free Float Magnetic System	٠
concept	Multifunctional, programmable handgrips	•
	LCD display with user guidance	•
	Foot control panel for zoom and focus	0
Tubes	Tiltable tube 0-180°	•
	Foldable tube f170/f260, incl. PROMAG function boost to 150 %	0
	magnification and detail magnification	
Eyepieces	12.5x wide-field eyepieces; also suitable for eyeglass wearers	٠
	10x wide-field eyepieces; also suitable for eyeglass wearers	0
	10x or 12x wide-field eyepieces with reticle; also suitable for eyeglass wearers	0
Magnification	Example with working distance 300 mm and 12.5x eyepieces:	•
range	Magnification 2.3x up to 14x	
	Field-of-view diameter: 75 to 16 mm	
Illumination	Halogen illumination with 2 halogen reflector lamps in the quick-change module	•
	Xenon illumination, with daylight characteristic including 2 xenon lamps	0
	in the quick-change model	
	Integrated coaxial cold light illumination	٠
	Orange filter for composite materials and swing-in Illumination diaphragms	٠
High Definition	1Chip HD Camera (1080p), 1/3" CMOS Output: DVI, HD-SDI, S-Video	0
video	HD video recorder	0
	HD monitors	0
Accessories	Angled optics optional with tube dovetail	0
	Double iris diaphragm to increase the depth of field	0
	Beam splitters: Angled optics documentation port, optional with tube dovetail	0
	Beam splitter with documentation port	0
	Stereo co-observer	0
	Foot control panel for zoom and focus	0
	Photo adapter for SLR cameras (f=340 mm)	0
	FlexioStill adapter for digital cameras	0
	FlexioMotion adapter for digital camcorders	0
	Splash protection for the objective lens	0
	VisionGuard <sup>®</sup> drapes	0
	Sterilizable asepsis caps and handgrip covers	0
	Instrument tray on floor stand	0

![](_page_23_Figure_3.jpeg)

S7 Centro Mount for KaVo CENTRO O suspension system

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The contents of the brochure may differ from the current status of approval of the product in your country. Please contact our regional representative for more information. EN\_30\_010\_0187V SUR.4260 Rev D Printed in Germany. AW-CZ-XI/2016 Noo

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• Standard • Option

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# Seeing without compromise.

**ZEISS OPMI pico** 

ZEISS

![](_page_24_Picture_4.jpeg)

![](_page_25_Picture_0.jpeg)

# **ZEISS OPMI pico** Simple, compact, proven

OPMI® pico from ZEISS, the most frequently sold ZEISS surgical microscope worldwide, is the trusted choice among doctors. It makes details and fine structures clearly visible. The system enables you to better visualize regions of interest and consistently provide your patients with high-quality examinations and treatments.

ZEISS OPMI pico's cost-effective LED illumination meets your standards and needs. The complete integration of the light source makes it easier to clean the system.

Ergonomic seating enables users to conveniently maintain an upright working posture.

ZEISS OPMI pico also features camera options to facilitate patient consultation and documentation, depending on the specific needs in your practice.

The compact and easy-to-use ZEISS OPMI pico offers solid support for even the most demanding applications – whether in restorative dentistry, endodontics, implantology, or periodontics:

![](_page_26_Picture_6.jpeg)

Restorative dentistry Quickly detect enamel and dentine fractures as well as approximal caries. Highprecision views enable

accurate assessment of

levels, and veneers.

crown edges, preparation

![](_page_26_Picture_8.jpeg)

Endodontics

Visualize fine anatomical structures and details of root canals and isthmuses for a clear view right down to the apex.

![](_page_26_Picture_11.jpeg)

Implantology

Conduct high-precision examinations and implant treatments quickly and confidently. Reliably detect important anatomical structures.

![](_page_26_Picture_14.jpeg)

Periodontics

Benefit of support for soft-tissue evaluation and management to assist healing, low scarring, and improved cosmetic outcomes.

# **Better view**

ZEISS OPMI pico enables you to visualize high-contrast, true-color images – the key to improving the quality of examination and treatment. With ZEISS OPMI pico, optics and illumination go hand in hand.

![](_page_27_Picture_2.jpeg)

#### View the whole mouth

The Varioskop<sup>®</sup> 100 objective lens allows you to adjust the focal length over a range of 200 mm to 300 mm to focus on the whole oral cavity in the vertical axis – without moving the microscope.

![](_page_27_Picture_5.jpeg)

#### Long-lasting LED

For color rendition and light that strongly resembles natural daylight. It is a very cost-effective and virtually maintenance-free light source. The low heat output requires minimal ventilation and generates little noise.

![](_page_27_Picture_8.jpeg)

**Full overview of fine details** ZEISS OPMI pico delivers high-quality images at every magnification level.

# **Better ergonomics**

While treating your patients you can sit comfortably in an upright, ergonomically correct position for a more relaxed working day.

![](_page_28_Picture_2.jpeg)

# Comfortable working conditions and improved vision

Over 75% of dentists found that using a dental microscope had a positive effect on their neck and back pain.<sup>5</sup> Working in a comfortable posture allows you to fully focus on your patient and their procedure, and increases your productivity.<sup>6</sup>

A dental microscope can offer other ergonomic benefits, such as improved vision and reduced eye fatigue, common in dental professionals and corresponding to increasing age.<sup>7-9</sup>

# Adjust the ZEISS OPMI pico to your demands and not vice versa

Reduce or increase the distance for the required treatment field as needed with the patented multi-link design of Foldable Tube f170/f260. With its long reach, this highly flexible system easily accommodates the needs of the user and different positions of the patient.

![](_page_28_Picture_8.jpeg)

# **Better education**

Real-life pictures are very convincing. ZEISS OPMI pico can accommodate a full HD video camera with recording and streaming, allowing you to present patients with high-definition material to explain procedures.

![](_page_29_Picture_2.jpeg)

#### Benefits of an integrated full HD camera

- Complete function integration
- Co-observation and documentation
- Simplified cleaning of the housing
- Images and videos recorded onto a shared network drive or a USB device
- Capture of full HD images during recording or from a recorded video

#### Benefits of live viewing and streamings

- Video livestream into the network
- Smart Recording: retroactively record video that occurred in the previous 30 seconds

# **Better integration**

A highly compact instrument with a small footprint, ZEISS OPMI pico fits seamlessly into virtually any practice workflow environment. Simply plug in the cable, switch on the power, and the ZEISS OPMI pico is ready for use.

# Complete integration of technology and design in the suspension arm for a well-balanced architecture

Functional elements such as the video control console, HD video camera, cables, light sources, and light guides are completely integrated into the stand to avoid workspace clutter.

![](_page_29_Picture_16.jpeg)

# **Technical data** S100/OPMI pico from ZEISS

STOU/OPIMI	pico from ZEISS	Packages	Startup	Relax	Documenta
Magnification system	Manual 5-step apochromatic magnif	ication changer	•	•	
Eyepieces	12.5x widefield eyepieces	without reticle	•	•	
		with reticle			
	10x widefield eyepieces	without reticle			
		with reticle			
Tube	180° tiltable tube offers ergonomic posture by adjusting the tiltable angle		•		•
Objective lens	Varioskop 100, focusable working distance 200–300 mm			0	0
	f=250 mm with fine focus			0	0
	f=300 mm with fine focus				0
Illumination system	LED with daylight characteristic for excellent color rendition, virtually maintenance-free				
	Orange filter to prevent curing of composites				•
	Green filter for better contrast of tissue with high blood supply				
User interface	Handgrips at the back, individually adaptable at the push of a button by rotating		•	•	•
Asepsis	Sterilizable asepsis caps for the controls of the microscope, the handgrips as well as for the interpupillary distance adjustment of the 180° tiltable tube		•	•	•
Ergonomics	Foldable f170/f260 tube with the PROMAG function delivers up to 150% magnification on the spot			•	
	Angled optics with rotatable dovetai	il mount for binocular tubes		•	
Communication	Integrated video camera (full HD 108 USB stick, remote control, DVI-DVI v	30p) with live streaming and recording functionality (incl. ideo cable for connection to an HD monitor)			•

● Basic configuration ○ Package options □ Add-ons

#### Suspension system options

Floor stand

![](_page_30_Figure_5.jpeg)

#### **Ceiling mount**

![](_page_30_Figure_7.jpeg)

#### Wall mount (wallplate)

![](_page_30_Figure_9.jpeg)

#### Workplace integration

Further space-saving suspension system options are available for the Centro carrier system and specified treatment units.

nentation

#### Application images courtesy of:

- <sup>1</sup> Dr. Claudia Cia Worschech, Sao Paulo, Brazil
- <sup>2</sup> Dr. José Aranguren Cangas, Madrid, Spain
- <sup>3</sup> Dr. Behnam Shakibaie, Tehran, Iran
- <sup>4</sup> Dr. Rino Burkhardt, Zurich, Switzerland
- <sup>5</sup> Zaugg B et al. Influence of magnification tools on the recognition of artificaila preparation and restoration defects (in German). Schweiz Monatsschr Zahnmed 2004;114:890-896. [Abstract]
- <sup>6</sup> Linger W. Advantages for patients under the dental microscope. Available from: https://www.drlinger.com/blog/dental-microscope
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- J Indian Soc Periodontol 2018;22(1):5-11.

![](_page_31_Picture_12.jpeg)

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# **Treating with flexibility.**

**ZEISS EyeMag medical loupes** 

![](_page_32_Picture_2.jpeg)

Seeing beyond

zeiss.com/loupes

![](_page_33_Picture_0.jpeg)

# **ZEISS EyeMag Medical Loupes** Precision at first sight

Medicine today requires meticulous attention to detail. Seeing tiny anatomical structures is not possible without correct magnification and high-quality optics. Clarity and precision enable successful treatments and optimal quality care. EyeMag<sup>®</sup> medical loupes from ZEISS offer premium optical performance for first-time and experienced users. Equipped with LED illumination, the visualization tools provide great image clarity and depth of field over the entire treatment area. Easy to use and comfortable to wear, ZEISS EyeMag medical loupes combine elegance with functional design in a wide range of working distances and magnification levels.

![](_page_34_Picture_3.jpeg)

# ZEISS EyeMag Smart

- With 2.5x magnification, ideal for applications that require a large field of view and excellent depth of field
- Available with titanium eyeglass frame or fashionable sports frame

![](_page_34_Picture_7.jpeg)

# ZEISS EyeMag Pro F and ZEISS EyeMag Pro S

- Edge-to-edge sharpness with up to 5x magnification, ideal for users with high magnification needs
- Available with titanium eyeglass frame or comfortable headband

![](_page_34_Picture_11.jpeg)

# ZEISS EyeMag Light II

- Combined with high-quality ZEISS optics, the powerful ZEISS EyeMag Light II provides crisp detail recognition and an unaltered view of tiny structures
- Perfect fit for all ZEISS EyeMag medical loupes

# **ZEISS EyeMag Smart** See the whole picture with stunning detail

With 2.5x magnification, ZEISS EyeMag Smart medical loupes provide images with impressive color rendition of anatomical structures. The large field of view and striking depth of field allow easy visualization of the entire treatment area. When magnification is not needed, the loupe can simply be flipped up, offering the wearer an unobstructed view. Available in an elegant, lightweight titanium or sports frame, ZEISS EyeMag Smart medical loupes feature a range of settings for flexible tilt and angle views and a comfortable, ergonomic fit. Quick and easy to adjust, the medical loupe settings remain stable. The result: the ZEISS EyeMag Smart is a good choice for users requiring a compact and easy-tooperate medical loupe.

# ZEISS EyeMag Smart

with titanium eyeglass frame

![](_page_35_Figure_5.jpeg)

Features high-quality, scratch-proof ZEISS anti-reflective coating

# ZEISS EyeMag Smart

with sports frame

![](_page_36_Picture_2.jpeg)

#### Style, function and comfort

ZEISS EyeMag Smart medical loupes are also available with a compact, lightweight and stylish sports frame, providing good wearing comfort during longer procedures. The curved lens design protects the wearer against splash and debris.

# **ZEISS EyeMag Smart** for laser therapies

![](_page_36_Picture_6.jpeg)

#### **Protection for laser procedures**

Special ZEISS EyeMag Smart medical loupes for surgeons performing laser therapies, offer high-quality laser protection\* combined with advanced visualization. This model meets laser safety requirements of the European standard EN 207.

\* A PROTECT-Laserschutz GmbH product

![](_page_36_Picture_10.jpeg)

Elastic strap Ideal weight distribution provides a perfect fit

![](_page_36_Picture_12.jpeg)

# **ZEISS EyeMag Pro** Advanced visualization for professional applications

Experienced users with higher magnification needs will appreciate the advanced visualization capabilities of the ZEISS EyeMag Pro. Available in various magnification levels (3.2x–5x), ZEISS EyeMag Pro medical loupes provide highcontrast stereoscopic images with edge-to-edge sharpness for detail recognition and differentiation. When magnification is not needed, optics can simply be flipped up. Mounted on either a lightweight titanium eyeglass frame (ZEISS EyeMag Pro F) or with a carrier system S (ZEISS EyeMag Pro S), the medical loupes offer settings for a wide range of tilt and angle views while supporting a comfortable, ergonomic working position. Settings are quick and easy to adjust and remain stable at all times.

# ZEISS EyeMag Pro F

with titanium eyeglass frame

![](_page_37_Figure_5.jpeg)

High-quality surface Suitable for cleaning and disinfecting

# ZEISS EyeMag Pro S

with carrier system S

![](_page_38_Picture_2.jpeg)

![](_page_38_Picture_3.jpeg)

Elastic strap Ideal weight distribution provides a perfect fit

# **ZEISS EyeMag Light II** Lighting the way

The powerful lighting of the ZEISS EyeMag Light II provides illumination intensity for high detail recognition. Combined with high-quality ZEISS optics, the LED illumination can support a clear, sharp view of tiny details and structures thanks to its close resemblance to daylight and even distribution of light. Two powerful rechargeable battery packs and a charging cradle are part of the standard package allowing practically interruption-free work – 24/7. The compact, portable, and ergonomic design optimizes comfort for daily use across a wide range of procedures.

![](_page_39_Picture_3.jpeg)

#### Illumination as needed - flexible and mobile

![](_page_40_Picture_1.jpeg)

In combination with ZEISS EyeMag medical loupes, EyeMag Light II offers almost coaxial light, resulting in minimal shadow formation.

![](_page_40_Picture_3.jpeg)

Swing-in orange filter for ZEISS EyeMag Light II prevents premature curing of composite materials.

![](_page_40_Picture_5.jpeg)

Two rechargeable battery packs come with a convenient charging cradle for practically interruption-free work.

![](_page_40_Picture_7.jpeg)

![](_page_40_Picture_8.jpeg)

![](_page_40_Picture_9.jpeg)

Unlike illuminations with conventional lens configurations, ZEISS EyeMag Light II offers with its clearly defined illuminated field even and powerful illumination across the entire field of view of your ZEISS loupes.

Conventional system

ZEISS EyeMag Light II

----- Field of view

# Personalized magnification and illumination

Select the ideal medical loupe design and configuration for you

![](_page_41_Picture_2.jpeg)

# ZEISS EyeMag Smart

- Flip-up medical loupes featuring a Galilean design
- 2.5x magnification provides large fields of view for comprehensive visualization of the surgical area
- Easy, intuitive operation ready for use in seconds
- Comfortable, ergonomic fit
- Available with three different carriers: ZEISS EyeMag Smart with titanium eyeglass frame, ZEISS EyeMag Smart with sports frame and ZEISS EyeMag Smart with laser protection\*
- Compatible with ZEISS EyeMag Light II LED illumination

![](_page_41_Picture_10.jpeg)

# ZEISS EyeMag Pro F and ZEISS EyeMag Pro S

- Flip-up medical loupes featuring a Kepler design
- For users with high magnification demands
- Large selection of different models available in different combinations of magnification levels and working distances
- Available with two different carriers:
  ZEISS EyeMag Pro F with titanium eyeglass frame and
  ZEISS EyeMag Pro S with carrier system S
- Compatible with ZEISS EyeMag Light II LED illumination

![](_page_42_Picture_0.jpeg)

# Measure your working distance

Measure the typical distance from your eyes to the object of interest to determine the preferred working distance.

# Select the right combination

For the selected working distance, decide what combination of magnification and field of view will best suit your application. An overview of all fields of view and magnification levels is available on pages 12/13.

![](_page_42_Picture_5.jpeg)

![](_page_42_Figure_6.jpeg)

Application image courtesy of Dr. Claudia Cia Worschech, Sao Paulo, Brazil

# **Optical properties** Fields of view (actual size)

The following fields of view are possible depending on the working distance and the desired magnification. These determine the selection of your individual medical loupes.

![](_page_43_Picture_2.jpeg)

ZEISS EyeMag Smart

# **Optical properties**

	0	2	3	4	5
Field of view (mm)	67	77	86	96	115
Magnification	2.5x	2.5x	2.5x	2.5x	2.5x
Working distance (inches)	12	14	16	18	22
Working distance (mm)	300	350	400	450	550

![](_page_44_Figure_0.jpeg)

## **Optical properties**

Working distance (mm)	30	00	3	50	4	00	45	50	50	)0
Working distance (inches)	1	2	1	4	1	6	1	8	2	0
Magnification	4x	5x	3.6x	4.5x	3.5x	4.3x	3.3x	4x	3.2x	4x
Field of view (mm)	56	44	71	56	86	68	100	81	115	93
	2	0	4	2	6	8	8	5	9	7

# **Technical data** EyeMag Medical Loupes from ZEISS

#### ZEISS EyeMag Smart

Standard delivery package includes ZEISS EyeMag Smart with titanium frame, sports frame or sports frame with laser protection\*

Optics	Featuring a Galilean design	
Carriers	Titanium eyeglass frame	
	Sizes: S, M, L with elastic strap and soft nose bridge	
	Sports frame with elastic strap and soft nosepiece	
	Sports frame featuring laser protection and eyepiece protection, with elastic strap and soft nosepiece	
Lens protection device	Shields the objective lens against splashes and particles Features high-quality, scratch-proof ZEISS anti-reflective coating	
Contact guard	Sterilizable to reliably swing loupes up and down	
Side shields for ZEISS EyeMag Smart	Lateral protection against splashes and particles	
Soft case	High-quality, shock-proof protection for your medical loupes and accessories	

![](_page_45_Picture_4.jpeg)

#### ZEISS EyeMag Pro F and EyeMag Pro S

#### Standard delivery package of ZEISS EyeMag Pro F and EyeMag Pro S

Optics	Featuring a Kepler design
ZEISS EyeMag Pro F Carrier	Titanium eyeglass frame
	Sizes: S, M, L with elastic strap and soft nose bridge
ZEISS EyeMag Pro S Carrier	Carrier system S which can be adjusted to wearer's head
Lens protection device Protects against splashes and particles with ZEISS anti-reflective coating	
Contact guard	Sterilizable to reliably swing loupes up and down
Side shields for ZEISS EyeMag Pro F	Lateral protection against splashes and particles
Soft case High-quality, shock-proof protection for your medical loupes and accessor	

![](_page_45_Picture_8.jpeg)

![](_page_45_Picture_9.jpeg)

#### ZEISS EyeMag Light II

Standard delivery	package of ZEISS	EyeMag Light II
-------------------	------------------	-----------------

Bulb housing	Powerful LED light source with integrated temperature control
Control unit	With 3-step intensity control (on three levels 100%, 66%, 33%),
	charge level indicator and belt clip
Adapter for ZEISS loupes	To attach the ZEISS EyeMag Light II LED illumination to ZEISS EyeMag Smart,
	EyeMag Pro F and EyeMag Pro S
Cable clip	To connect the lamp cable to the carrier
Soft case	High-quality, shock-proof protection for your light source and accessories
Swing-in orange filter for ZEISS EyeMag Light II	To prevent premature curing of composite materials for dental application
Light intensity	Up to 50,000 Lux (at distance of 300 mm)
Typical color temperature	Resembles daylight (approx. 5,700 Kelvin)
Weight of illumination head	19 g (0.6 oz)
2 batteries	2 lithium-ion batteries for fast charging
Battery charger	Processor controlled with country-specific power adapter
Operating time	Thanks to their short charge times the two battery packs enable continuous usage of the light during the entire workday

![](_page_46_Picture_3.jpeg)

# CE

EyeMag medical loupes EyeMag Light II

Carl Zeiss Meditec AG

Goeschwitzer Strasse 51–52 07745 Jena Germany www.zeiss.com/loupes www.zeiss.com/med/contacts

![](_page_47_Picture_5.jpeg)

Strator Laser One laser protection

![](_page_47_Picture_7.jpeg)

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