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ZEISS Primostar 3

Your compact microscope for digital teaching and routine lab work.

zeiss.com/primostar

ZEISS

Seeing beyond

› **In Brief**
› The Advantages
› The Applications
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› Service

Your compact microscope for digital teaching and routine lab work.

In the classroom or in the routine lab, you need reliable microscopes that can take a lot of wear and tear. After all, you and your colleagues or students will be working long hours, often in cramped spaces. You need microscopes that will pay back your investment with smooth operation – day-to-day and year in, year out. Primostar 3 packs all of that into its sturdy metal frame. Yet this robust light microscope is also designed for maximum ease of use. For both productive learning and efficient lab work, students and staff alike will be free from the very beginning to focus on the essentials.

Choose from pre-defined packages for teaching or routine lab work and get the precise microscope configuration you need for the tasks at hand. Each microscope comes pre-installed so it's ready to work right out of the box – that's genuine plug in and play performance. And when you want to take your teaching online or connect your labs on a network, it's easier than ever before with Labscope, the free imaging software from ZEISS.

Primostar 3 is your reliable partner in microscopy – today and in years to come.

Whether you prefer a basic fixed-Köhler teaching microscope or a dedicated full-Köhler set-up for your lab, ZEISS Primostar 3 comes in pre-defined packages. Choose between ready-to-go combinations.

Simpler. More Intelligent. More Integrated.

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Go for a sound investment

With ZEISS Primostar 3 you're choosing a robust microscope that's designed and built for daily work in a classroom or routine lab. Primostar 3 is made of solid materials so you can rely on a mechanically-stable and resilient microscope. Even after years of daily, intensive use, its components will still be operating smoothly. That built-in durability is reflected in our offering you the benefit of an extended warranty up to five years. Primostar 3 comes in ready-to-use packages, tailored to your application so you can be sure you will have the optimal configuration. Just unwrap it, plug it in and play!

Tailor your microscope to your tasks

Let your application decide which microscope configuration you choose. The stable design of your full-Köhler version also houses an array of clever features. A 30-watt halogen bulb is interchangeable with an energy-saving LED bulb for stable color temperature and illumination intensity.
Or, you can add on a fluorescence tube and turn your Primostar 3 into an LED fluorescence microscope. Contrasting techniques, suitable objective lenses and ports for microscopic documentation are just as you wish. And after a full day's work in the lab, you'll especially appreciate its user-friendly design: the long stage drive lets you work in a relaxed posture, and the double-slider holder boosts efficiency, too.

Inspire students in your digital classroom

Consider the advantages of having the microscope camera integrated into the tube with a number of digital interface options. Use Labscope, the imaging software from ZEISS, to connect microscopes in your classroom to each other, then share images or videos with your students via mobile devices. Opt for Labscope Teacher to manage and organize your class.
Take advantage of connected microscopes in a digital classroom and gain insights into each and every one through your own iPad or PC. This saves your valuable time for teaching.
Then to take your teaching online, simply connect your own microscope with your PC and share your images with all members on the call.

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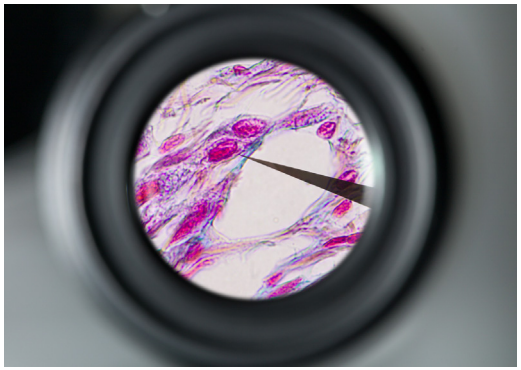
Fixed-Köhler Reliability for Education
Education matters and time for lessons content is always limited. That's why Primostar 3 offers you some very clever details to make your teaching as productive as possible. Fixed-Köhler versions of Primostar 3 come pre-adjusted with a field of view of 20 mm. Selected objective lenses and eyepieces are already in place. Simply plug in your microscope and start your lesson. And here's another plus: long-lasting LED illumination saves energy in your classroom. You want to place your microscope into your storage cabinet? Carry it securely by the handle.

LED light band
Check the status of the microscope`s illumination at a glance – even from a distance.



Optional eyepiece pointer
This useful accessory is inserted into the eyepiece, like a reticle, for marking specific object details in the eyepiece image. Retrofittable.

5V USB port
Use the port at the back of the fixed-Köhler stand to connect a power bank or charge your mobile device.

Cable storage
All cables are neatly stored at the microscope.

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ZEISS Primostar 3 in teaching and routine labs

Efficiency in teaching and lab work is key. Full-Köhler versions of Primostar 3 with field of view 22 mm give freedom to teach while using Köhler illumination. In pre-defined packages, a selection of objective lenses and eyepieces are already in place. Benefit from a relaxed posture for day-long work with enlarged stage drive. If you have more specimens in place, you can use the double slider holder. The light manager offers you the same light intensity level over all magnifications. Additional plus: the ECO mode saves you energy and therefore helps to reduce lab costs. You aim for more comfort for your routine lab work? Then choose Primostar 3 with integrated turret condenser and have brightfield, darkfield and phase contrast techniques at hand.

Condenser turret

Switch easily between different contrasting techniques such as brightfield, phase contrast or darkfield.

Click here to view this video

Light manager

Activate the light manager when changing lenses and the microscope will remember the precise amount of light set for each lens position.

Click here to view this video

ECO mode

If activated, the microscope will go into a sleep mode if you don't touch it for 30 minutes.

Lamp housing

Use either a 30-watt halogen bulb or an energy-saving 3W-LED illumination offering stable color temperature and illumination intensity. They are interchangeable.

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Digital Classroom

Bring on the next generation of scientists in your digital classroom. Use the ZEISS Labscope software to connect all your students' microscopes plus network cameras and create a collective learning experience. As a teacher, you can monitor all of their microscopes at a glance. You can see how your students are progressing right in front of your eyes and support them individually where needed. When you see an image of particular relevance on a microscope in the network, share it with the whole group via a projector or monitor. Let this be where a more interactive learning experience opens up your face-to-face teaching.

Primostar 3 cam with its integrated 5 MP camera is the package of choice for digital classrooms. This camera offers interfaces such as Wi-Fi, Ethernet and USB-C 3.0. As an added bonus, integrated powering saves you from a jumble of cables. If you prefer microscopes with external camera adaptation, this package will also suit your purposes.

Both options pave your way to live online teaching and learning. Simply connect your microscope or Wi-Fi-camera to your PC and share what you see with the members on your call.

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ZEISS Labscope

Use Labscope, the imaging software from ZEISS, to display all the live images from your connected microscopes. Select any student's image with just one click. Record images and videos with a resolution of 5 megapixels. You can annotate your images and, for example, measure distances. Then share your images, reports and videos with others via E-Mail or social media. Labscope lets you save your images in the ZEN compatible .czi file format which includes all metadata and a separate annotation layer. Or select the .jpg format to save space. Downloading Labscope is fast and simple. And it's free.

Download Labscope for Windows and Android on ZEISS Portal

GET IT ON Google Play

Download on the App Store

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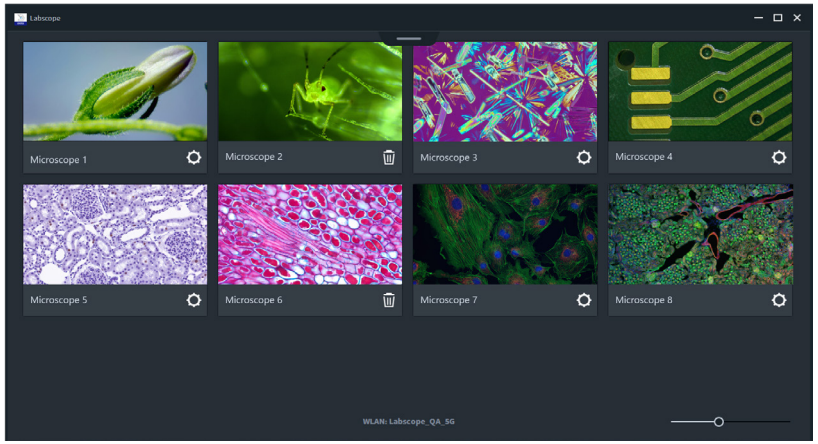
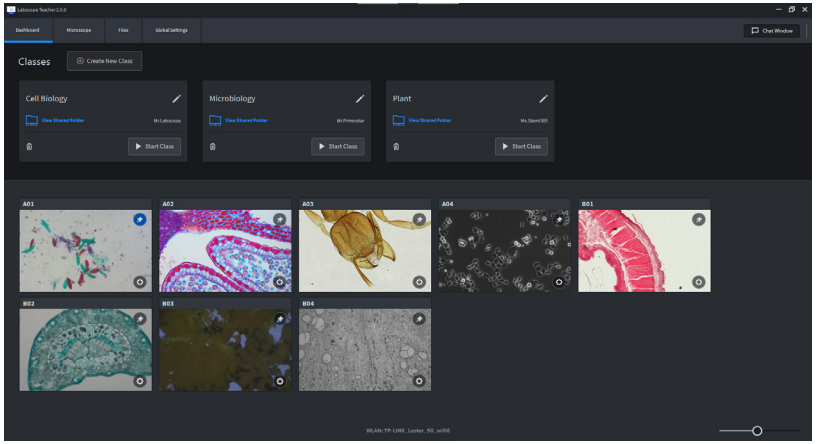
ZEISS Labscope

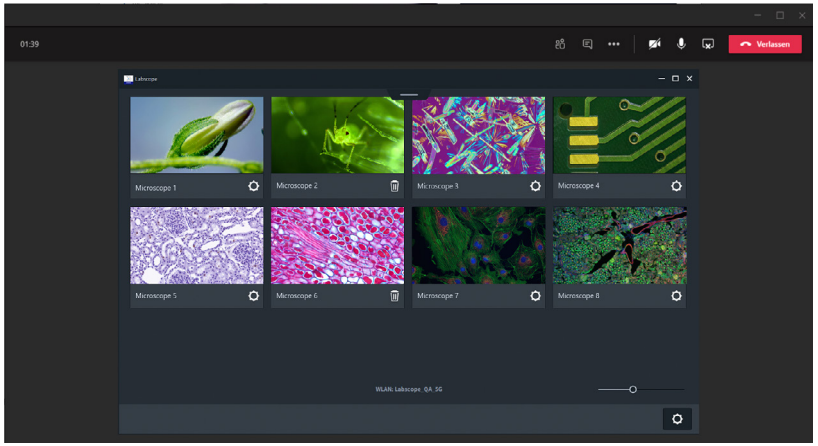
Labscope is your easy-to-use imaging software for connected microscopes. Whether for the routine lab, university or school, or even as a hobby – Labscope lets you snap images, record videos and measure your microscopic samples – easier than ever before.



Start your journey in digital and interactive teaching with all students' microscopes right in front of your eyes.



Labscope Teacher helps you manage your digital classroom.



This is the home or hybrid schooling in microscopy education: students connected to the live image of your microscope via Teams.

No artistic skills required to make hand drawings of a microscopy image. This translucent sketch solution supports an inspiring learning style.

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Phototube
Document your microscope images with the phototube and a microscope camera.

Swiveling mirror
(for fixed-Köhler stands only)
This accessory lets you use your microscope with ambient light or sunlight – no electricity required.

Transport case
Protect and transport your ZEISS Primostar 3 with the dedicated case.

Polarizing contrast
Each stand can be equipped quickly with a polarizer and analyzer for polarizing contrast in transmitted light.

Fluorescence tube
Add on a fluorescence tube and turn your Primostar 3 into an LED fluorescence microscope.

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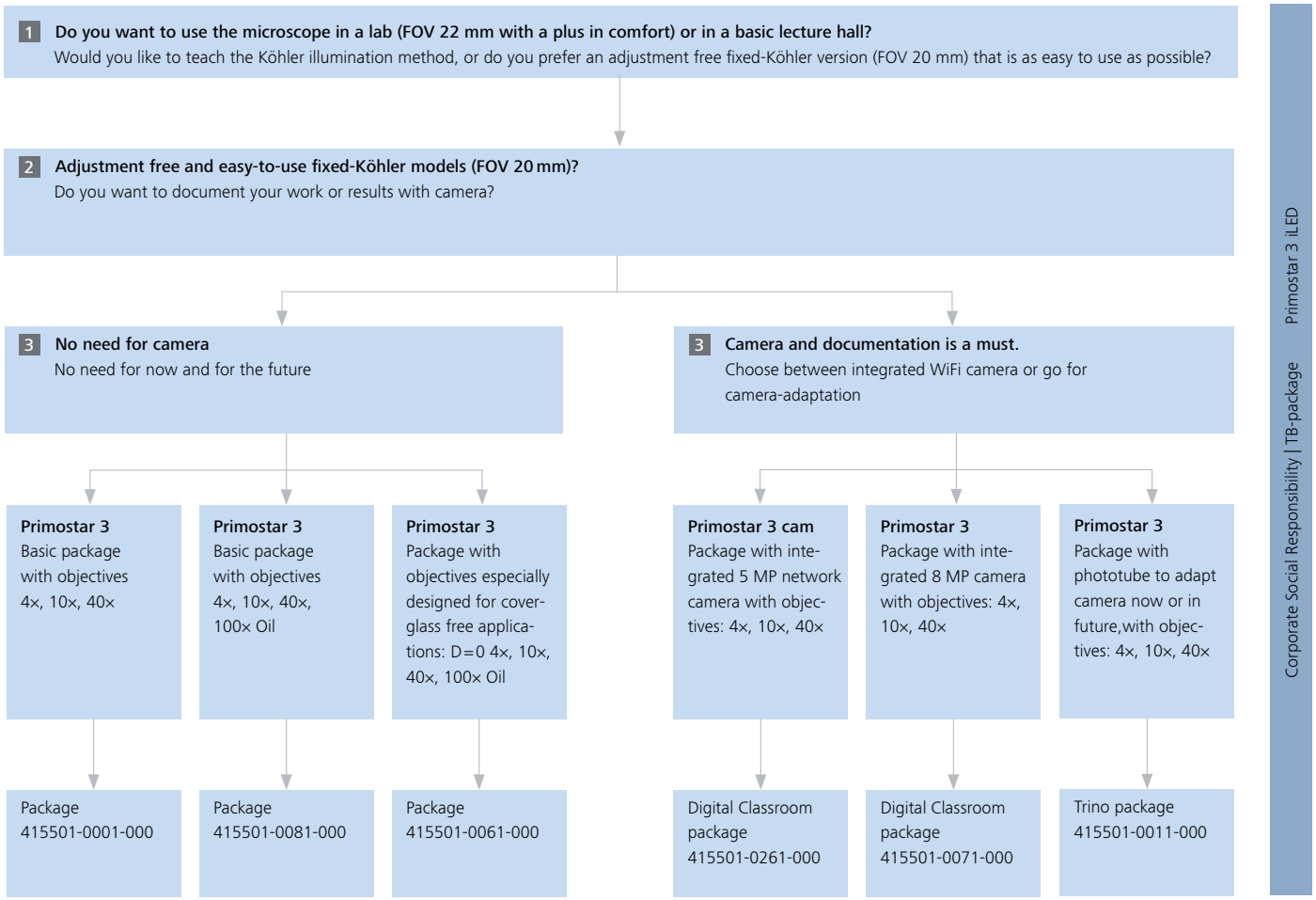
Package Overview



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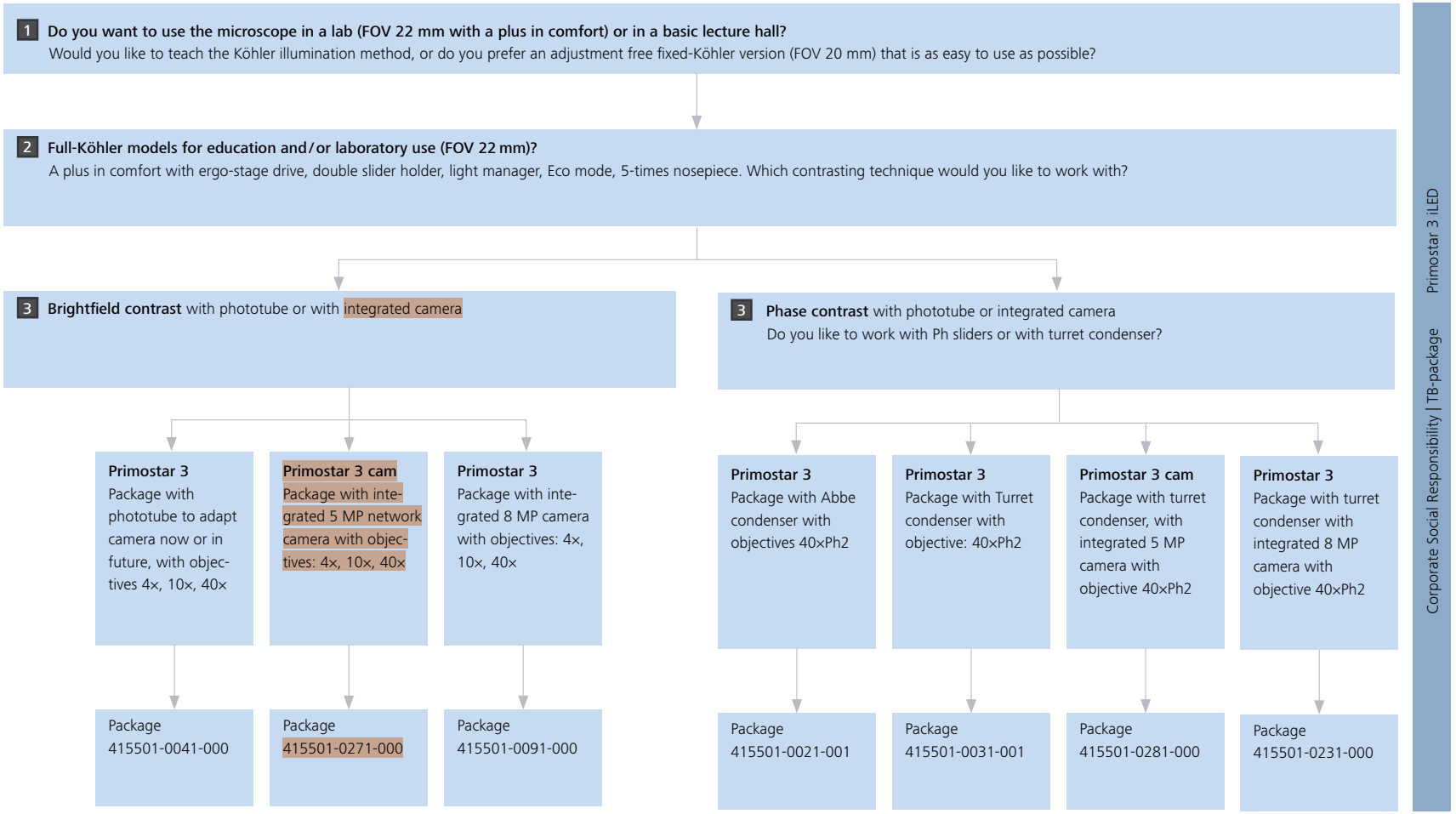

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Order Number	Primostar 3: 415501-0081-000	Primostar 3: 415501-0001-000	Primostar 3: 415501-0011-000	Primostar 3: 415501-0071-000	Primostar 3: 415501-0061-000	Primostar 3: 415501-0041-000	Primostar 3: 415501-0021-001
Viewing angle	25°	25°	25°	25°	25°	25°	25°
Stage drive right	×	×	×	×	×	×	×
FOV 20 mm	×	×	×	×	×		
FOV 22 mm						×	×
Fixed-Köhler	×	×	×	×	×		
Full-Köhler						×	×
HAL						×	×
LED	×	×	×	×	×	×	×
Pointer	×	×	×				
Phototube			×			×	×
Integrated 5MP camera							
Integrated 8MP camera				×			
4× nosepiece	×	×	×	×	×		
5× nosepiece						×	×
Objectives D=0					4×, 10×, 40×, 100× Oil		
Objectives ∞/0.17	4×, 10×, 40×, 100× Oil	4×, 10×, 40×	4×, 10×, 40×	4×, 10×, 40×		4×, 10×, 40×	40× Ph2
Abbe condensor	×	×	×	×	×	×	×
Turret condensor							
Light manager						×	×
Eco mode						×	×

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Order Number	Primostar 3: 415501-0031-001	Primostar 3: 415501-0091-000	Primostar 3: 415501-0231-000	Primostar 3 cam: 415501-0261-000	Primostar 3 cam: 415501-0271-000	Primostar 3 cam: 415501-0281-000
Viewing angle	25°	25°	25°	25°	25°	25°
Stage drive right	×	×	×	×	×	×
FOV 20 mm				×		
FOV 22 mm	×	×	×		×	×
Fixed-Köhler				×		
Full-Köhler	×	×	×		×	×
HAL	×	×	×		×	×
LED	×	×	×	×	×	×
Pointer						
Phototube	×					
Integrated 5MP camera				×	×	×
Integrated 8MP camera		×	×			
4× nosepiece				×		
5× nosepiece	×	×	×		×	×
Objectives D=0						
Objectives ∞/0.17	40× Ph2	4×, 10×, 40×	40× Ph2	4×, 10×, 40×	4×, 10×, 40×	40× Ph2
Abbe condensor		×		×	×	
Turret condensor	×		×			×
Light manager	×	×	×		×	×
Eco mode	×	×	×		×	×

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Typical applications, typical samples	Task	ZEISS Primostar 3 offers
Histology **Histopathology** **Microscopic anatomy**	Students need to acquire detailed knowledge of microscopic structure, form and function of cells, tissues, and organs. Each student learn to sketch histological slides and to identify its characteristics by visual microscopic inspection. This to finally justify diagnosis.	Fixed-Köhler packages: Primostar 3: 415501-0081-000 with 4×, 10×, 40×, 100× Oil Primostar 3: 415501-0001-000 with 4×, 10×, 40× Fixed-Köhler packages with camera option (trinotube): Primostar 3: 415501-0011-000 with 4×, 10×, 40× Fixed-Köhler package with integrated camera: Primostar 3 cam: 415501-0261-000 with 4×, 10×, 40× or Primostar 3: 415501-0071-000 with 4×, 10×, 40× Full-Köhler package with camera option (trinotube): Primostar 3: 415501-0041-000 with 4×, 10×, 40×
Cell biology	Students need to acquire detailed knowledge of cell structures, cell components, their forms and functionalities. Basic knowledge in cell biology is an important prerequisite for early detection of uncontrolled cell growth in cancer, for example, and for research into the development and treatment of cancer.	Full-Köhler package with phase contrast and camera option (trinotube): Primostar 3: 415501-0021-001 with 40× Ph2 (Ph-slider) Primostar 3: 415501-0031-001 with 40× Ph2 (turret condenser)
Food microbiology	Healthy nutrition is important for well-being. New food designs with additives such as lactic acid bacteria or yeasts (so-called probiotics) want to make food even healthier. The composition of the different food additives is key for the positive effect of the food design. The additives, like bacteria, can be detected under the microscope.	Primostar 3: 415501-0031-001 with 40× Ph2 iPlan-Achromat 100× Oil Ph3: 415501-1645-000 Darkfield slider: 415501-1802-000 Camera Educam 105: 426555-9020-000 Camera adapter P90-C 2/3" 0.65×: 415501-1810-000
Medical microbiology	Bacterias can cause numerous diseases, that is why medical lab technicians need to identify the different bacteria correctly. This is pre-requisite to judge on further treatment of the patient. Gram-staining helps to classify between gram-positive (e.g. Staphylococcus, Streptococcus) and gram-negative bacteria (e.g. Enterobacteriaceae). Their different morphology can be visualized under the microscope.	Primostar 3: 415501-0041-000 with 4×, 10×, 40× iPlan-Achromat 100× Oil: 415501-1641-000 Camera Educam 105: 426555-9020-000 Camera adapter P90-C 2/3" 0.65×: 415501-1810-000
Hematology	Blood cells consists of erythrocytes (red blood cells), leukocytes (white blood cells) and platelets (thrombocytes). They all have specific forms and functions, e.g. in transporting oxygen, protecting against blood loss and fighting infections. In stained blood cells under the microscope, the different blood cells and their pathogenic changes can be visualized, blood cells can be counted and also blood differential tests can be made.	Full-Köhler package with camera option (trinotube): Primostar 3: 415501-0041-000 with 4×, 10×, 40× Primostar 3: 415501-0061-000 with 10×, 20×, 40× 100× Oil, D=0 Accessories: iPlan-Achromat 100× Oil: 415501-1641-000 Darkfield slider: 415501-1802-000 Camera Educam 105: 426555-9020-000 Camera adapter P90-C 2/3" 0.65×: 415501-1810-000

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Typical applications, typical samples	Task	ZEISS Primostar 3 offers
Gynecology	In women healthcare, changes in vaginal discharge can indicate infection with yeast, bacteria, parasite *Trichomonas vaginalis* or other pathological processes. The composition of the vaginal fluid can be examined under a microscope. To identify the different microorganism, phase contrast is the method of choice.	Full-Köhler package with camera option (trinotube): Primostar 3: 415501-0021-001 with 40× Ph2 (Ph-slider) Primostar 3: 415501-0031-001 with 40× Ph2 (Turret condenser) Accessories: iPlan-Achromat 100× Oil: 415501-1641-000 iPlan-Achromat 20×: 415501-1622-000 Camera Educam 105: 426555-9020-000 Camera adapter P90-C 2/3" 0.65×: 415501-1810-000
Plantbiology **Ecology** **Agriculture**	From plants to food. Plants play a growing role as food for humans and animals, especially in view of the growing population worldwide. Studying plant morphology, plant physiology, reliable detection and classification of plant pests and diseases (phytopathology), diagnosis of malnutrition and pathogenic organisms as pre-requisite to decide about successful plant treatment.	Fixed-Köhler package with integrated camera: Primostar 3: 415500-0071-000 with 4×, 10×, 40× Full-Köhler package with camera option (trinotube): Primostar 3: 415501-0041-000 with 4×, 10×, 40× Camera Educam 105: 426555-9020-000 Camera adapter P90-C 2/3" 0.65x: 415501-1810-000
Sputum detection	Lab technicians need to identify *Mycobacterium tuberculosis* as fast as possible. Gold standard is Ziehl-Neelsen staining and brightfield microscopy. In fluorescence excitation, Mycobacterium tuberculosis can be identified up to 4 times faster, with up to 30 % higher sensitivity. Auramine-O-stained bacilli are easy to detect as glowing tubercle in front of a dark background.	Primostar 3: 415501-0061-000 with 10×, 20×, 40× 100× Oil, D=0 Accessory: Fluorescence intermediate tube iLED 455nm: 415501-1820-000

ZEISS Primostar 3 at Work

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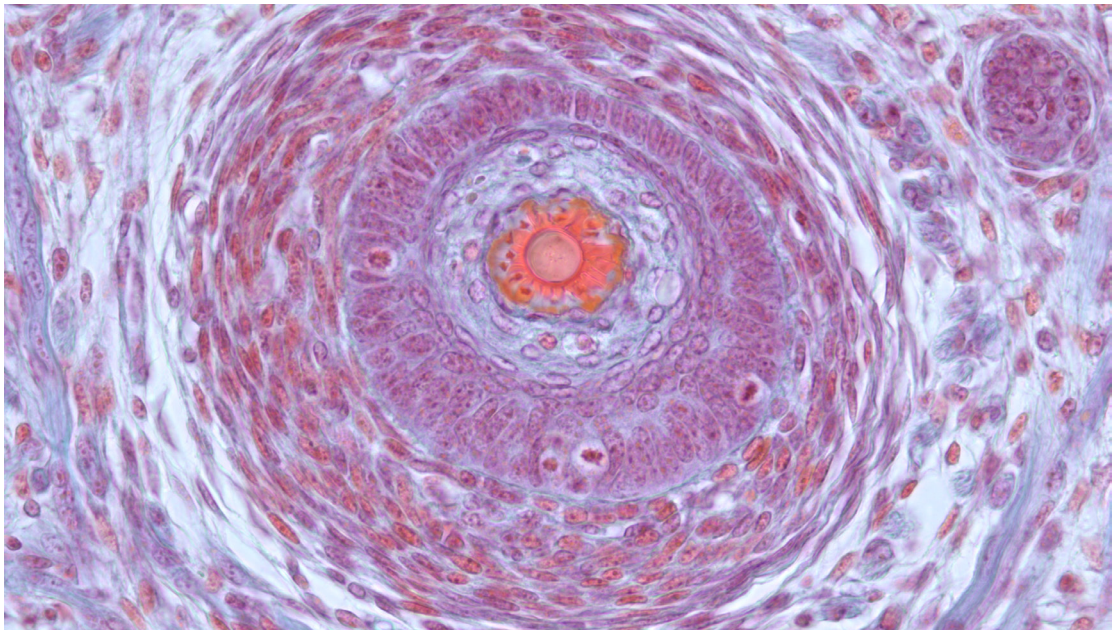
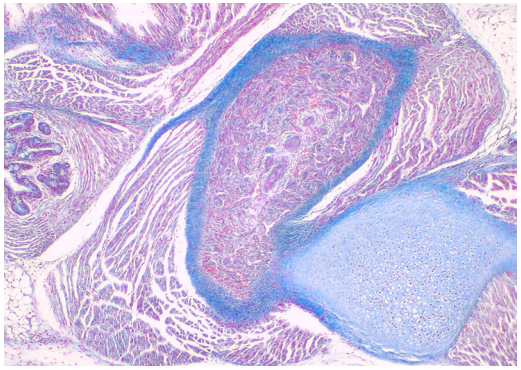
Mouse Hair Follicle

- Brightfield contrast
- Magnification: 40×

Recommended package:

- Package 415501-0011-000:
  Primostar 3 Fixed-Köhler with camera port
- Package 415501-0041-000:
  Primostar 3 Full-Köhler with camera port





Young Mouse: Primostar 3 with iPlan Achromat 10×

Rana: Primostar 3 with iPlan Achromat 40×

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Convallaria majalis

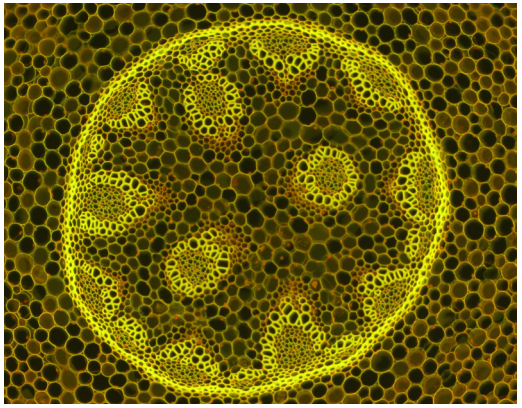
- Brightfield & fluorescence contrast
- Magnification: 4×, 10×

Recommended package:

- Package 415501-0041-000
  Primostar 3 Full-Köhler with intermediate Fluorescence tube (415501-1822-000) for FITC stained specimen

Convallaria *in brightfield, magnification: 4×*

Convallaria *in brightfield, magnification: 10×*



Convallaria *in fluorescence contrast, magnification: 10×, Filterset 09 for FITC*

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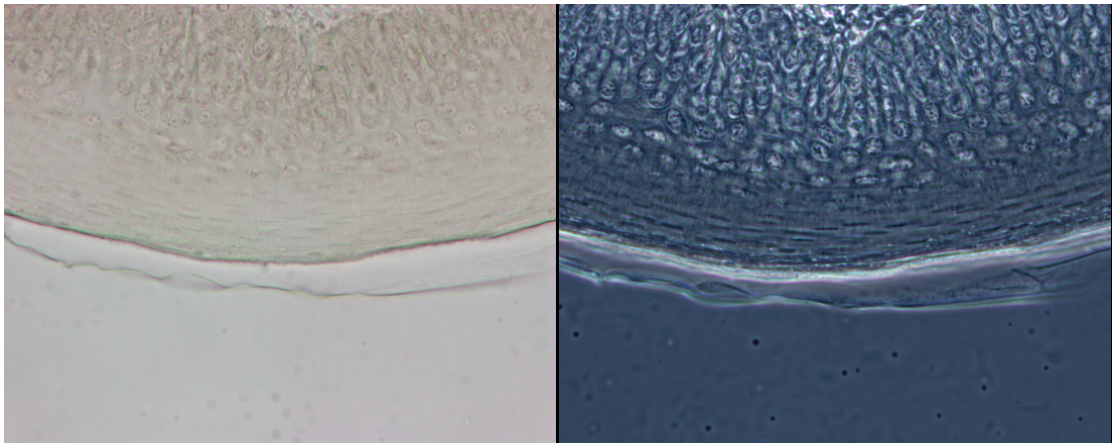
Tongue of rabbit, taste buds

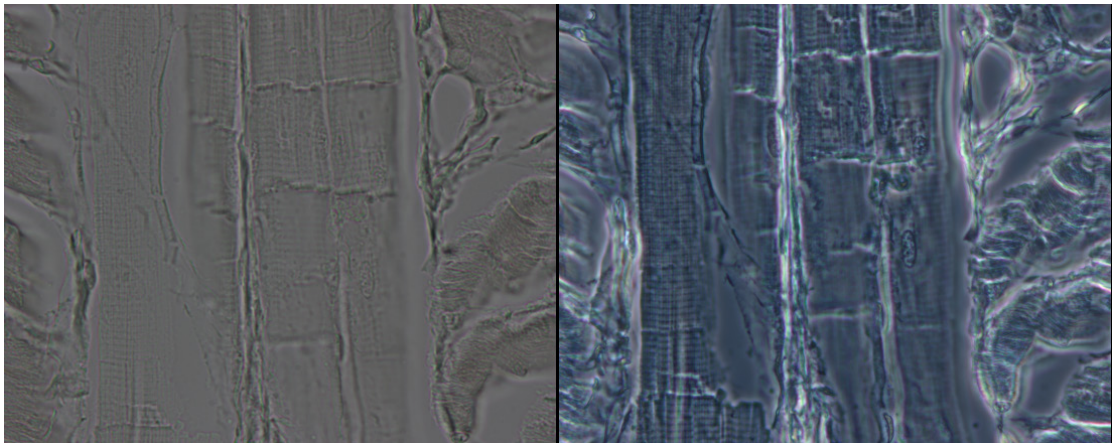
- Brightfield & phase contrast
- Magnification: 40×

Recommended package:

- Package 415501-0021-001:
  Primostar 3 Full-Köhler with phase contrast
- Package 415501-0031-001:
  Primostar 3 Full-Köhler with phase contrast
  and turret condenser



Taste buds in brightfield and phase contrast, magnification: 40×



Taste buds in brightfield and phase contrast, magnification: 40×

Your Flexible Choice of Components

ZEISS Primostar 3 Fixed-Köhler versions

ZEISS Primostar 3 Full-Köhler versions

1 Microscope

- **Primostar 3 Fixed-Köhler**
  FOV=20, 4 position nosepiece,
  LED, with or without handle
- **Primostar 3 Full-Köhler**
  FOV=22, 5 position nosepiece,
  LED/HAL, ECO mode,
  Light manager, long stage drive,
  double slider holder

2 Objectives

- iPlan-Achromat 4×/10×/20×/40×/100× Oil
- iPlan-Achromat Ph 10×/20×/40×/100× Oil
- iPlan-Achromat D=0 10×/20×/40×/100× Oil

3 Eyepieces

- Eyepiece 10×/20 Br. Foc.
- Eyepiece 10×/22 Br. Foc.

4 Condensers

- **Condenser Abbe 0.9/1.25**
  with slot (sliders for Ph and/or DF)
- **Turret condenser BF/Ph1/Ph2/Ph3/DF**

5 Illumination

- **Transmitted light halogen 6V 30W**
  (only full-Köhler stands)
- **Transmitted light LED 3W 5600K**
- **Reflected light Fl iLED***
  (455 nm + FS 67 or 470 nm + FS 09)

6 Cameras

- Educam 105
- Binocular tube 25/22 w/int cam 5 MP
- Binocular tube HD 25/22 w/int cam 8 MP

7 Software

- Labscope imaging software

8 Further accessories

- Transmitted light mirror
- Eyepiece pointer
- Crossline micrometer
- Simple polarization accessory
- Transport and storage cases

* Only for stands without handle

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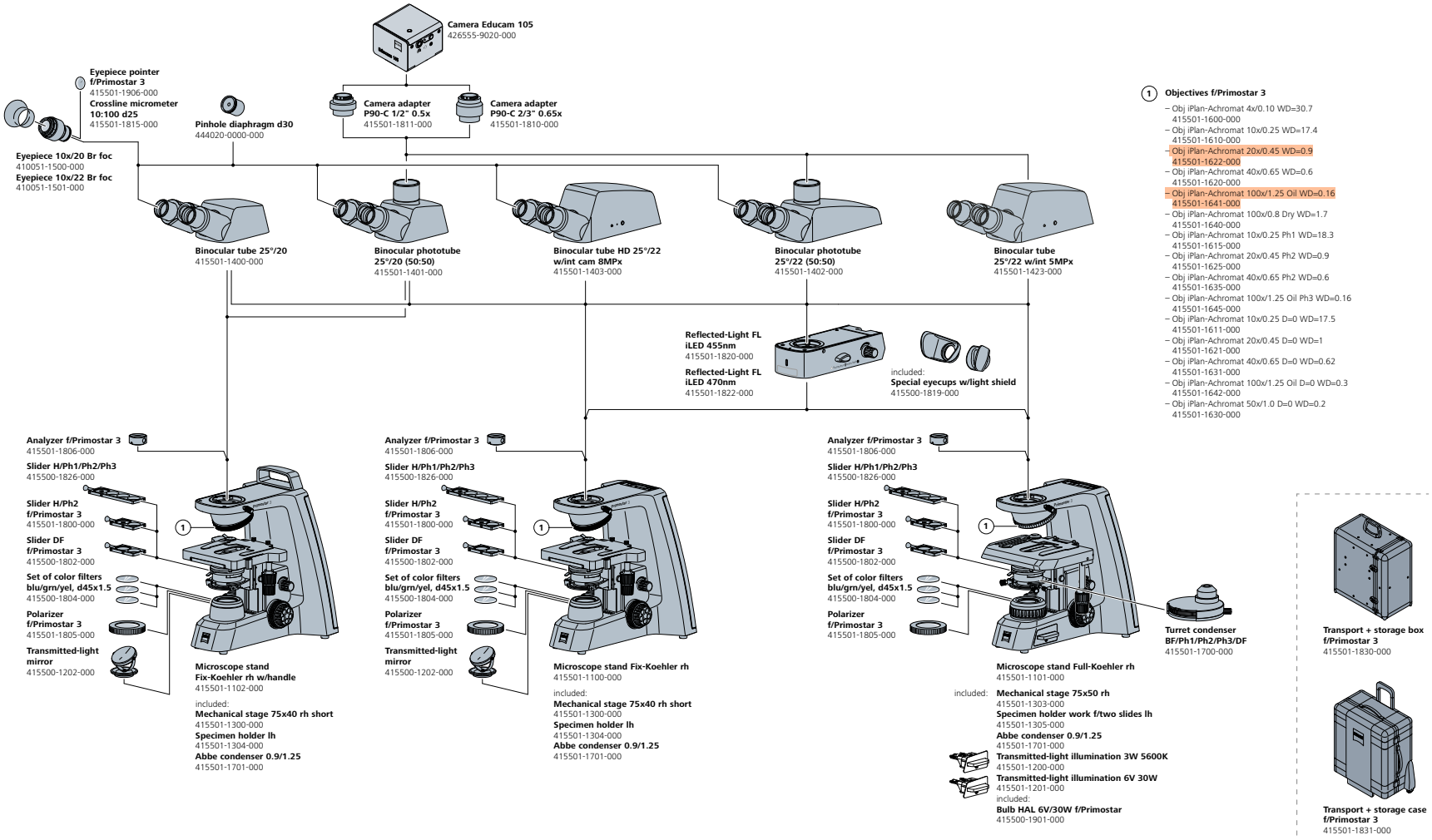

① **Objectives f/Primostar 3**

- Obj iPlan-Achromat 4x/0.10 WD=30.7 415501-1600-000
- Obj iPlan-Achromat 10x/0.25 WD=17.4 415501-1610-000
- Obj iPlan-Achromat 20x/0.45 WD=0.9 415501-1622-000
- Obj iPlan-Achromat 40x/0.65 WD=0.6 415501-1620-000
- Obj iPlan-Achromat 100x/1.25 Oil WD=0.16 415501-1641-000
- Obj iPlan-Achromat 100x/0.8 Dry WD=1.7 415501-1640-000
- Obj iPlan-Achromat 10x/0.25 Ph1 WD=18.3 415501-1615-000
- Obj iPlan-Achromat 20x/0.45 Ph2 WD=0.9 415501-1625-000
- Obj iPlan-Achromat 40x/0.65 Ph2 WD=0.6 415501-1635-000
- Obj iPlan-Achromat 100x/1.25 Oil Ph3 WD=0.16 415501-1645-000
- Obj iPlan-Achromat 10x/0.25 D=0 WD=17.5 415501-1611-000
- Obj iPlan-Achromat 20x/0.45 D=0 WD=1 415501-1621-000
- Obj iPlan-Achromat 40x/0.65 D=0 WD=0.62 415501-1631-000
- Obj iPlan-Achromat 100x/1.25 Oil D=0 WD=0.3 415501-1642-000
- Obj iPlan-Achromat 50x/1.0 D=0 WD=0.2 415501-1630-000

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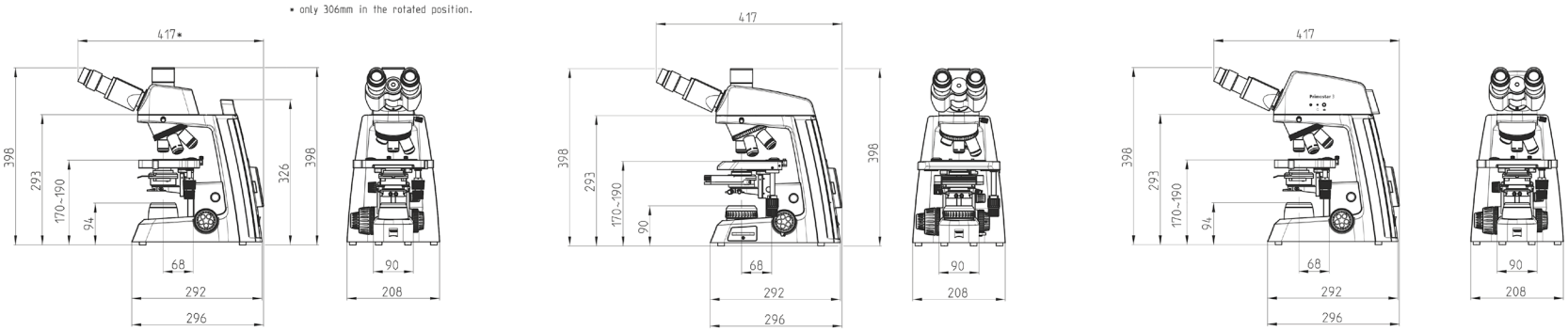

Dimensions (width × depth × height)		
Systems with fixed-Köhler stands	approx. 208 mm × 296 mm × 398 mm	(with reflected light FL iLED intermediate tube approx. 208 mm × 296 mm × 453 mm)
Systems with full-Köhler stands	approx. 208 mm × 296 mm × 398 mm	(with reflected light FL iLED intermediate tube approx. 208 mm × 296 mm × 453 mm)
Systems with Binocular tube 25°/20 w/int cam 8 MPx	approx. 208 mm × 296 mm × 398 mm	(with reflected light FL iLED intermediate tube approx. 208 mm × 296 mm × 453 mm)

Weight	
Systems with fixed-Köhler stands	approx. 8.5 – 10.5 kg *
Systems with full-Köhler stands	approx. 9.4 – 11.4 kg *
Systems with binocular tube 25/22 w/int cam 5 MP or tube HD 25/22 w/int cam 8 MP	approx. 9.6 – 13.9 kg *

* Depending on configuration

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Ambient conditions	
Transportation (in packaging):	
Permissible ambient temperature	–40 °C to +70 °C
Storage:	
Permissible ambient temperature	+5 °C to +40 °C
Permissible air humidity (no condensation)	max. 80 % at 40 °C
Operation:	
Permissible ambient temperature	+5 °C to ~40 °C
Permissible air humidity (no condensation)	< 80 % at 40 °C
Atmospheric pressure	800 hPa to 1060 hPa
Installation site	Exclusively inside buildings
Altitude	max. 2000 m

Operating data	
Protection class	II
Protection type	IP20
Electrical safety	in compliance with DIN EN 61010-1 (IEC 61010-1) including CSA and UL directives
Pollution degree	2
Overvoltage category	II
Radio interference suppression	in accordance with EN 61326
Line voltage	100 to 240 V (±10 %) wide-range input power supply, i.e. voltage setting of the instrument need not be changed!
Line frequency	50 / 60 Hz
Power consumption	max. 100 VA
Main power input	100~240V AC; 50/60Hz; (Applicable to all models).
Optional power input 1	12V DC, 2A (Fixed-Koehler only)
Optional power input 2	5V DC, 1A (Fixed-Koehler only)
Optional power output	5V DC, 2A (Fixed-Koehler only)
LED class of complete device	3B

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Mechanical and optical data

Stand with specimen stage and focusing device	Fixed-Köhler stand	Full-Köhler stand
Coarse focusing drive	45 mm/rev.	45 mm/rev.
Fine focusing drive	0.2 mm/rev.	0.2 mm/rev.
Total stage lift	20 mm	20 mm
Specimen stage	**Mechanical rackless stage**	**Mechanical rackless stage**
Dimensions (width x depth)	140 mm × 135 mm	180 mm × 145 mm
Stage travel (X × Y)	75 mm × 40 mm	75 mm × 50 mm
Coaxial drive	long, left/right	long, left/right
Vernier scales	readable from right	readable from left
Specimen holder	with spring clip left	with spring clip left, for two slides

Condensers	Fixed-Köhler stand	Full-Köhler stand
Abbe condenser 0.9/1.25	for objective 4× to 100×	for objective 4× to 100×
Turret condenser BF/DF/Ph.1/Ph.2	for objective 4× to 100×	for objective 4× to 100×

Light sources	Fixed-Köhler stand	Full-Köhler stand
Halogen lamp	–	HAL 6 V/30 W (changeable)
Adjustability	–	1.5 V to 6V DC
Color temperature	–	2,800 K (at 6V)
Luminous flux	–	280 lm
Average service life	–	1,000 h
Luminous area	–	1.5 mm × 3 mm
LED white light illumination	white light LED 1 W 5,600 K (fixed)	white light LED 3 W 5,600 K (changeable)
Peak wavelength	440 nm	440 nm
Homogeneous field illumination	20 mm	22 mm
Analogous brightness adjustment	approx. 15 to 100 %	approx. 15 to 100 %
Average operation lifetime	approx. 30,000 hours	approx. 35,000 hours

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Tubes

Binocular (Photo)tubes	**Binocular tube 25°/20**	**Binocular phototube 25°/20 (50:50)**	**Binocular phototube 25°/22 (50:50)**
Maximum field-of-view number	20	20	22
Interpupillary distance	adjustable from 48 mm to 75 mm	adjustable from 48 mm to 75 mm	adjustable from 48 mm to 75 mm
Viewing height	380 mm to 415 mm	380 mm to 415 mm	380 mm to 415 mm
Viewing port, tube factor	1×	1×	1×
Photo/video port, tube factor	–	1×	1×
Photo/video port, mount	–	60 mm	60 mm
Invariable splitting ratio	–	50 % vis and 50 % doc	50 % vis and 50 % doc

Tubes

Binocular tube with integrated camera	**Binocular tube 25/22 w/int cam 5 MP or Binocular tube HD 25/22 w/int cam 8 MP**
Maximum field-of-view number	22
Interpupillary distance	adjustable from 48 mm to 75 mm
Tube angle	25°
Viewing height	380 mm to 415 mm
Viewing port, tube factor	1×
Integrated HD-CMOS camera	

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Integrated 4K microscope camera	
Sensor type	Sony CMOS image sensor color, Rolling Shutter
Sensor size	Image diagonal 8.15 mm, equivalent to 1/1.9”
Pixel count	3840 (H) × 2160 (V) = 8.3 MP, Ultra HD (4K)
Pixel size	1.85 µm × 1.85 µm
Bit depth	3 × 8 bit / pixel
Exposure range	0.06 ms up to 1 s
Frame rate	HDMI: 30 fps Ethernet: 30 fps USB 3.0: up to 30 fps
Cooling system	Passive cooling
Spectral sensitivity	RGB Bayer color mask
Interface	HDMI, USB 3.0 Type B, RJ45 (LAN), 3x USB 3.0 Type A, RJ12 for power supply
Wi-Fi compatibility	USB 3.0 Type A
Power supply	Power from stand via RJ12 cable
Operating system	Windows 10 & 11 (64-bit), iOS 15 or later, Android 12 or later
Software	On Screen Display (OSD) for stand alone Labscope v 3.0 and higher
Image enhancement functions	Active denoising, active sharpening, HDR
Automatic features	Automatic exposure and gain regulation at Ultra HD resolution (4K), auto white balance, fast live image under low light conditions

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Integrated Network camera	
Sensor Type	CMOS image sensor Color, Rolling Shutter
Effective Sensor Pixel Count	5.04 MP: 2592 (H) × 1944 (V)
Selectable resolution:	5 MP (snap) and 2 MP (live and snap)
Spectral Sensitivity	Approx. 400 nm – 660 nm, IR filter RGB Bayer color mask
Resolution 5 MP:	2592 × 1944
Pixel size (physical)	2.0 µm × 2.0 µm
Sensor size:	5.2 mm × 3.9 mm, equivalent to 1/2.8" (6.5 mm diagonal)
Resolution 2 MP:	1920 × 1080
Pixel size (calculated)	2.67 µm × 2.67 µm
Sensor size (used):	5.1 mm × 2.9 mm (5.9 mm diagonal)
Gain (Signal Amplification)	0 – 27× adjustable
Digitization	24-bit (3 × 8 bit RGB) A/D conversion
Exposure Time Range (integration time)	0.03 ms up to 1 s
Status LED	Color coded operation status
Interfaces	USB 3.0 Type A for Wi-Fi adapter or USB flashdrive Ethernet (RJ45) for LAN connection
Control buttons on camera	1× Image Capture / Snap button 1× Camera factory reset
Wi-Fi compatibility	Via USB Wi-Fi adapter
Power supply	Power from stand via RJ12 cable.
Power consumption	Input: 100 – 240V AC (±10%), 50/60Hz, 0.5A; Output: 12V DC, 1A, 12W
IP code	IP20
Supported Operating Systems	Windows 10 & 11 (64-bit), iOS 15 or later, Android 12 or later
Supported Application Software	Labscope v4.3 and later

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ZEISS Service – Your Partner at All Times

Your microscope system from ZEISS is one of your most important tools. For over 175 years, the ZEISS brand and our experience have stood for reliable equipment with a long life in the field of microscopy. You can count on superior service and support - before and after installation. Our skilled ZEISS service team makes sure that your microscope is always ready for use.

Procurement

- Lab Planning & Construction Site Management
- Site Inspection & Environmental Analysis
- GMP-Qualification IQ/OQ
- Installation & Handover
- IT Integration Support
- Startup Training

Operation

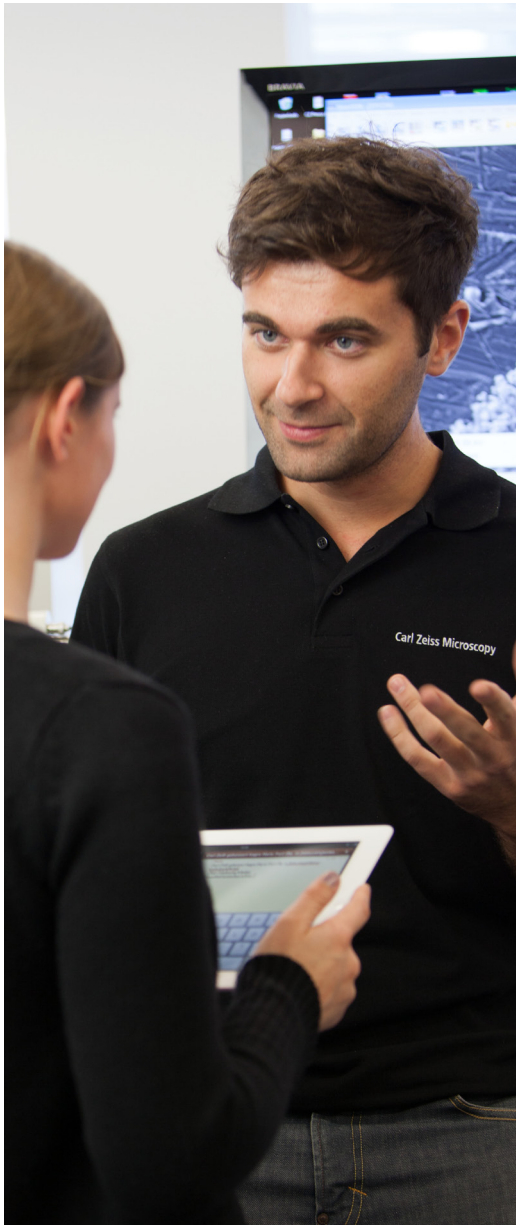
- Predictive Service Remote Monitoring
- Inspection & Preventive Maintenance
- Software Maintenance Agreements
- Operation & Application Training
- Expert Phone & Remote Support
- Protect Service Agreements
- Metrological Calibration
- Instrument Relocation
- Consumables
- Repairs

New Investment

- Decommissioning
- Trade In

Retrofit

- Customized Engineering
- Upgrades & Modernization
- Customized Workflows via ZEISS arivis Cloud



Please note: Availability of services depends on product line and location

www.zeiss.com/microscopy/service

Please note:
The microscopes are also suitable for use in educational establishments by students at least 14 years old when supervised by trained professionals.

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