

ZEISS Primostar 1

for Education and Teaching



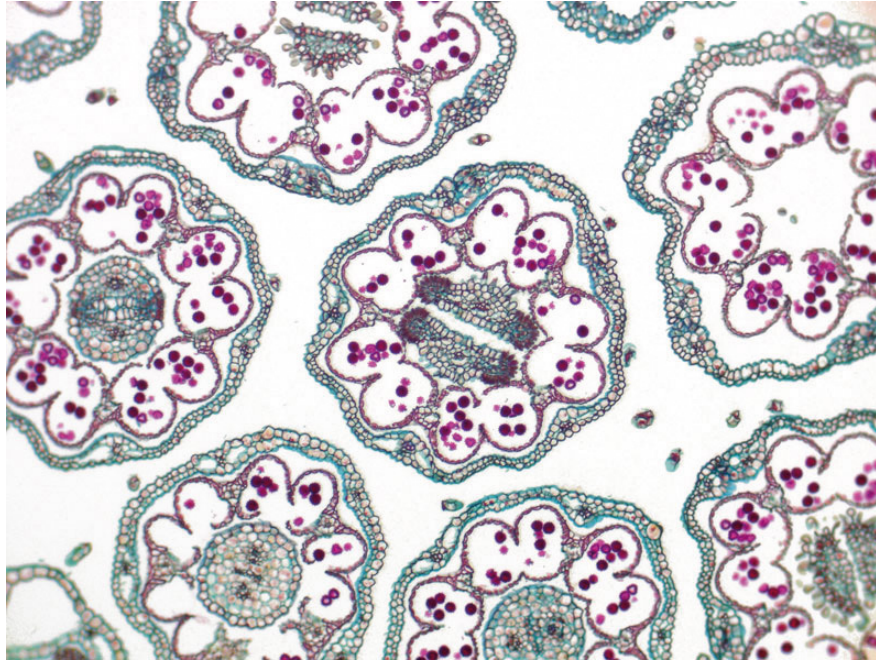
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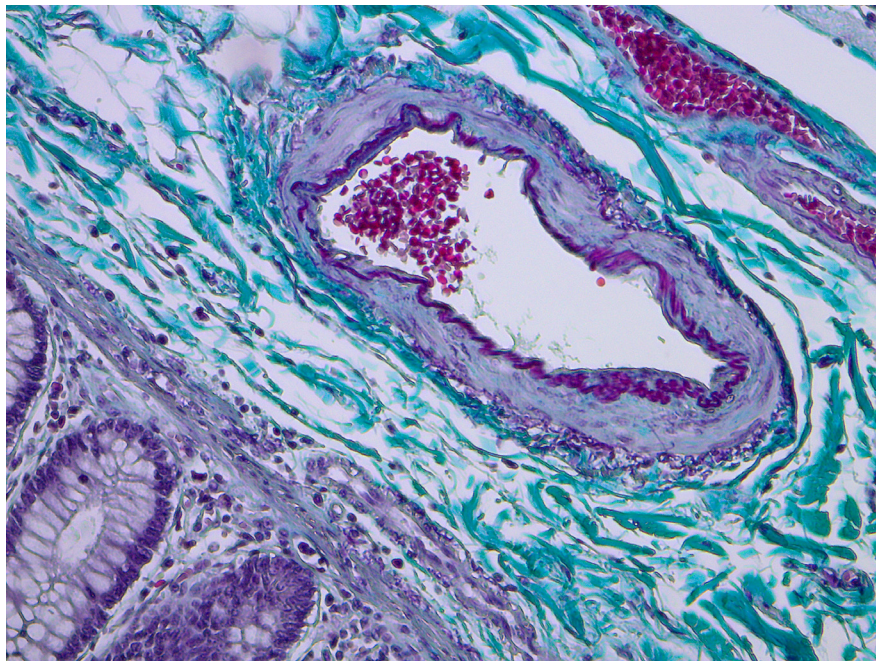
ZEISS Primostar 1

for Education and Teaching

Robust, easy-to-use, quality optics and above all, affordable: educational microscopes must have special requirements. ZEISS Primostar 1 meets them all. Primostar 1 focuses on the essentials. This teaching microscope is optimized for brightfield microscopy of stained samples in the life sciences. Primostar 1 comes as a fixed-package microscope with Fixed-Koehler illumination. Simply plug in and start your discoveries. For sustainable use, Primostar 1 is made of high quality materials and focusses on energy-saving LED illumination. Precision makes teaching with Primostar 1 effective and your choice a highly economical investment. Additional plus: 5 year warranty are guaranteed.



Daisy umbel (Bellis perennis) brightfield



Pig intestine, Masson-Goldner stained

- Ready-to-use package – simply plug in and start working.
- Have full control: blue light intensity display on both sides of the stand act as important control function over all microscopes in the course room: for control by the educator and quick control by the users
- For right-hand practice: Operate the stage drive with the right hand and use the focus drive with your left hand
- Rackless stage and stage cover for your safety and comfort
- For longevity: robust and short stage drive with easy-to-read scales
- A must-have: high standards in material selection: the microscopes consist mainly out of metal
- Height adjustable Siedentopf tube with 30° and field of view of 20 mm adjustment of the individual eye relief in a wide range from 50 mm to 75 mm
- Eyepieces are theft-protected
- One eyepiece with pointer
- Pre-installed objectives:
 - Plan-Achromat 4×/0.10, 10×/0.25, 40×/0.65
- Antifungus treatment of objectives
- Optional: Plan-Achromat 100×/ 1.25 Oil
- LED lifetime: 25,000 hrs
- Optional: Phototube to connect microscope camera for documentation and the connection of microscopes to a digital classroom, 50 vis/50 doc light splitting ratio



Technical Data

Dimensions (width × depth × height)	
Stand with binocular tube	approx. 190 mm × 400 mm × 390 mm
Weight	
Primostar 1 with binocular tube 30°/20	approx. 7.5 kg
Ambient conditions	
Transportation (in packaging): Permissible ambient temperature	-40 to +70 °C
Storage: Permissible ambient temperature	-10 to +40 °C
Permissible air humidity (no condensation)	max. 75 % at 35 °C
Operation: Permissible ambient temperature	+5 to +40 °C
Permissible air humidity (no condensation)	<80 % at 40 °C
Atmospheric pressure	800 hPa to 1,060 hPa
Operating altitude	max. 2,000 m
Degree of pollution	2
Operating data	
Protection class	II
Protection type	IP20
Electrical safety	in compliance with DIN EN 61010-1 (IEC 61010-2-101) including CSA and UL directives
Pollution degree	2
Overvoltage category	II
Radio interference suppression	in accordance with EN 61326-2
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
Plug-in power unit output	12 V DC; max. 2.5 A
Light sources	
LED illumination	white light LED, peak wavelength 440 nm, LED class 2
Constant, brightness-independent color temperature of	3,200 K
Homogeneous field illumination	20 mm diameter
Suitable for objectives with magnifications of	4x to 100x
Analogous brightness adjustment from	approx. 15 to 100 %
Optical/mechanical data	
Stand with stage focusing	
With coarse focusing drive	42 mm / rev.
With fine focusing drive	0.2 mm / rev.
Total stage lift	15 mm
Objective change	manual via quadruple objective nosepiece
Objectives	infinity-corrected objective range with W 0.8 mounting thread
Eyepieces	30 mm tube size
With field-of-view number 20	WF 10×/20 Br. foc.
Specimen stage	Mechanical rackless stage 75 × 40 right/left
Dimensions (width × depth)	140 × 140 mm
Stage travel (X × Y)	75 × 40 mm
Coaxial drive	optionally right or left
Vernier scales	readable from the right
Specimen holder	with spring lever, left
Abbe condenser 0.9/1.25; Fixed-Köhler	for objectives 4x to 100x
Binocular tube 30°/20, Trinocular tube 30°/20	
Maximum field-of-view	20
Interpupillary distance	adjustable from 50 to 75 mm
Tube angle	30°
Viewing height	380 to 415 mm
Viewing port	tube factor 1x
Illuminating mirror	with plane surface and spherical surface with $f' = 75$ mm
Photo/video port, tube factor	1x
Photo/video port, mount	60 mm
Invariable splitting ratio	50 vis/50 doc %

