



*B-190 Digital binocular microscope with digital imaging unit, X-OEF, 1000x, PLAN, EU*

<b>Main Body</b>	Type	Upright
	Construction material	Aluminum die-cast
	with transportation handle	Yes
	Internal prism	Glass prism
	Optical system	Finite 160 mm
	Optics with anti-fungus treatment	Yes

<b>Head</b>	Type	Binocular Digital
	Construction	Siedentopf
	Built-in camera	Yes
	Inclination	30°
	Rotation	360°
	Fixing screw for eyepieces	Yes
	Diopter adjustment	On left tube
	Diopter compensation	±5
	Interpupillary distance (mm)	48-75
	Split ratio	No
	Tube inner diameter (mm)	23

<b>Eyepieces</b>	Magnification	10x
	Field number (mm)	18
	High eyepoint (for glass wearers)	Yes
	Micrometric scale	Optional
	Diameter of micrometer glass (mm)	20

<b>Nosepiece</b>	Positions	Quadruple
	Reversed	Yes
	Bi-directional	Yes
	Rotation on ball bearings	Yes
	Objective thread	RMS

<b>Objectives</b>	Type	N-PLAN
	Correction	Plan Achromatic
	Parfocal distance (mm)	DIN 45
	Optical system	Finite 160 mm
	Standard magnifications	4x-10x-40x-100x
		M-164
		M-165
		M-167
	M-169	

<b>Stage</b>	Dimensions (mm)	125x115
	Mechanical stage	Rack and pinion
	Material	Anti-scratch painting
	Specimen holder	Yes
	Slide number	1
	Moving range (mm)	70x30
	X-Y movement	Yes
	X-Y Vernier scale	Yes
	Vernier scale accuracy (mm)	0.1
	Type	Double layer
	Right / Left hand	Right

<b>Condenser - Single Position</b>	Type	Abbe
	Numerical aperture (N.A.)	0.9 / 1.25
	Aperture diaphragm	Iris
	Holder for color filters	Yes
	Centerable	Pre-centered
	Focusable	By rotation

<b>Focusing System</b>	Type	3 step motorized
	Focus modes	Coarse, semi-fine and fine
	Coarse total travel (mm)	18
	Coarse total travel (per single rotation) (mm)	7,5
	Coarse resolution ( $\mu\text{m}$ )	250
	Semi-fine total travel (per single rotation) (mm)	0,24
	Semi-fine resolution ( $\mu\text{m}$ )	8
	Fine graduations	100
	Fine total travel (per single rotation) (mm)	0,03
	Fine resolution ( $\mu\text{m}$ )	1
	Upper stop to prevent contact	Yes
	Focus mode LED indicator	Yes
Motorized	Yes	

<b>Observation Method - Transmitted Light</b>	Brightfield	Yes
	Simple polarized light	Optional

<b>Transmitted Illumination</b>	Type	X-LED
	X-LED type	X-LED2
	Light source power (W)	3
	Brightness control	Manual
	Kohler illumination	No
	Color Temperature (K)	6,300
	Lifetime (hours)	> 65,000
	Max. required power (W)	6

<b>Power Supply for Transmitted Illumination</b>	Type	External
	Microscope connector	Jack, 2.1 mm
	Power plug type	Multi-plug (EU, UK, US)
	Input voltage	100/240 Vac, 50/60 Hz
	Output voltage	6 Vdc 2.5 A
<b>Accessories Included</b>	Dust cover	Yes
	Immersion oil (10ml)	Yes
	Green filter	Yes
	User Manual	Digital version (downloadable)
	Calibration slide	Yes
	USB cable (m)	0,5
<b>Product Dimensions (footprint)</b>	Width (mm)	140
	Depth (mm)	215
<b>Product Dimensions (overall footprint)</b>	Height (mm)	500
	Width (mm)	250
	Depth (mm)	290
<b>Product Weight</b>	(kg)	7.4
<b>Camera General specifications</b>	USB output	Yes
	Height (mm)	Included in the microscope head
	Weight (kg)	Included in the microscope head
<b>Sensor</b>	Camera resolution (n° of pixels: W x H)	2592x1944
	Color / Monochrome	Color
	Sensor Size	1/2.5"
	Sensor Technology	CMOS
	Sensor Type	APTINA CMOS
	Image Format	4:3
	Pixel Size (mm)	2.2x2.2
	Acquisition technology	Rolling shutter
	Sensitivity	18.8ke/lus
	Signal/Noise Ratio (DB)	40
	Dynamic range (DB)	73
	ADC conversion	12 Bit
	Color Depth	8 Bit
	Exposure time	0.1 msec - 1 sec
	Binning	1x1
IR filter	Yes	
IR filter range (nm)	380-650 (IR CUT)	
<b>USB</b>	Camera resolution (MP)	5.1
	USB standard	USB2.0
	Frame rate full resolution (fps)	30@2592x1944
	Frame rate other resolution (fps)	30@1280x960 30@640x480

<b>Camera Power Supply</b>	Connector	USB
	Output voltage	PC USB
	LED indicator	Yes
<b>Environment</b>	Working Temperature	-10°C up to +50°C
	Storage Temperature	-20°C up to +60°C
	Relative Humidity	30% to 80%
	Storage Humidity	10% to 60%
<b>Operating System</b>	OS	Windows 11
<b>Available Software</b>	PC SW	PROVIEW
<b>Digital Imaging Unit</b>	Operating system	Windows 11
	CPU	Intel® Core M3-8100Y
	CPU speed	3.4GHz
	Graphic card	Intel® UHD Graphics 615
	RAM	DDR3 12GB
	Display size	10.1" Incell 16:10
	Display resolution	1280x800
	Storage	Hdd 128 GB (SATA)
	Network	2.4G/5G 802.11a/b/g/n/ac + BT5.0 (6221C)
	Input ports	USB-A 3.0 (1x), Type C (2x)
	Output ports	Headphone - Micro HDMI
	Battery Type	Pure Cobalt
	Battery capacity	3400 mAh
	Power consumption	25,84W
	Power supply	12V2A Type-C
	Plug	European
	Dimensions (mm)	245.5*164.2*10
Weight (Kg)	0.57	
Language	English	