

## Binocular brightfield Microscope Optika B-292 / B-292RE



**Optika B-292 / RE**

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<b>Observation Method - Transmitted Light</b>	Brightfield	Yes
	Darkfield	As optional
	Simple polarized light	As optional
<b>Main Body</b>	Type	Upright
	Construction material	Aluminum die-cast
	Transportation handle	Yes
<b>Head</b>	Type	Binocular (Siedentopf)
	Inclination	30°
	360° rotating	Yes
	Interpupillary distance (mm)	48-75
	Dioptric adjustment	On left tube
	Fixing screw for eyepieces	Yes
	Tube inner diameter (mm)	23
<b>Eyepieces</b>	Field number (mm)	20
	Magnification	10x
	Pointer	As optional
	Micrometric scale	As optional
	Diameter of micrometer glass (mm)	21
	High eyepoint (for glass wearers)	Yes
	Rubber cup	Yes
<b>Nosepiece</b>	Positions	Quadruple
	Reversed	Yes
	Bi-directional	Yes
	Rotation on ball bearings	Yes
	Objective thread	RMS
<b>Objectives</b>	Optical system	160
	Anti-fungus treatment	Yes
	Parfocal distance (mm)	45
	Standard magnifications	40x-1000x
	Type	N-PLAN
	Objectives included	4x/0.10, W.D. 15.2 mm
		10x/0.25, W.D. 5.5 mm
40x/0.65, W.D. 0.45 mm		
100x/1.25 (Oil/Water), W.D. 0.13 mm		
<b>Stage</b>	Type	Double layer
	Dimensions (mm)	150x139
	Moving mechanism	Rackless
	Moving range (mm)	75x33
	Material	Anti-scratch painting
	Specimen holder	Yes
	Slide number	1
	X-Y Vernier scale	Yes
	Vernier scale accuracy (mm)	0.1

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<b>Condenser - Single Position</b>	Type	Abbe
	Removable	Yes
	Numerical aperture (N.A.)	1.25
	Magnification scale for simplified positioning	Yes
	Diaphragms	Iris
	Centrable	Yes
	Focusable	By rack and pinion

<b>Focusing System</b>	Type	Coaxial coarse & fine
	Coarse total travel (mm)	18
	Fine total travel (per single rotation) (mm)	0.4
	Fine graduations	100
	Fine resolution (µm)	4
	Upper stop to prevent contact	Yes
	Adjustable tension	Yes

<b>Transmitted Illumination</b>	Kohler illumination	Fixed
	Type	X-LED
	X-LED type	X-LED3
	Light source power (W)	3.6
	Brightness control	Manual
	Lifetime (hours)	> 65,000
	Temperature (K)	6,300
	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
	Tension adjustment tool	Yes
	User Manual	Digital version (downloadable)

<b>Additional Information</b>		Mirror for transmitted light (as optional). External rechargeable battery pack (as optional).
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<b>Product Dimensions</b>	Height (mm)	370
	Width (mm)	235
	Depth (mm)	320

<b>Product Weight</b>	(kg)	6.5
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## ***Binocular brightfield Microscope Optika B-292 / B-292RE***

- Observation mode:** Brightfield.
- Head:** Binocular, 30° inclined and 360° rotating. Interpupillary distance 48-75 mm.
- Dioptric adjustment:** On the left eyepiece tube.
- Eyepieces:** WF10x/20 mm, high eye-point and secured by screw.
- Nosepiece:** Quadruple revolving nosepiece, rotation on ball bearings.
- Objectives:** N-PLAN 4x/0.10, N-PLAN 10x/0.25, N-PLAN 40x/0.65 (N-PLAN 100x/1.25, Oil / Water) All with anti-fungus treatment.
- Specimen stage:** Double layer rackless mechanical sliding stage, 150×139 mm, 75×33 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm.
- Focusing:** Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen. Adjustable tension of coarse focusing knob.
- Condenser:** Abbe N.A. 1.25, with objective-coded iris diaphragm, focusable and adjustable.
- Illumination (Fixed Koehler type):** X-LED<sup>3</sup> with white 3.6 W LED (6,300 K) and light intensity control. Multi-plug 100-240Vac/6Vdc external power supply.



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### Easy Transportation

B-292 has a carefully shaped design that gives stability and ease in the transportation. Thanks to the handle on the back, it can be safely moved around the classroom or the laboratory.



### IOS – Infinity Optical System Laboratory grade optics

- » Plan achromatic optics with more than 90% flat field
- » Optimum quality on 20mm field (N-PLAN)
- » True infinity optical system

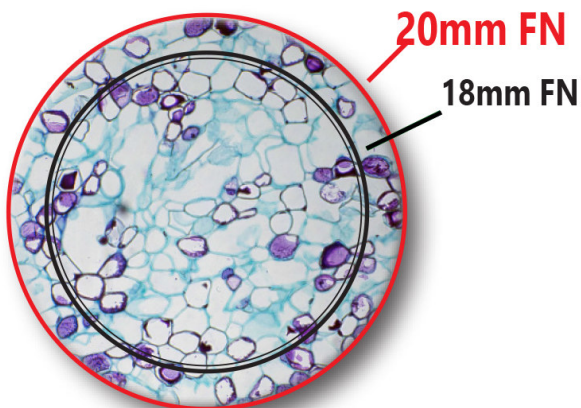
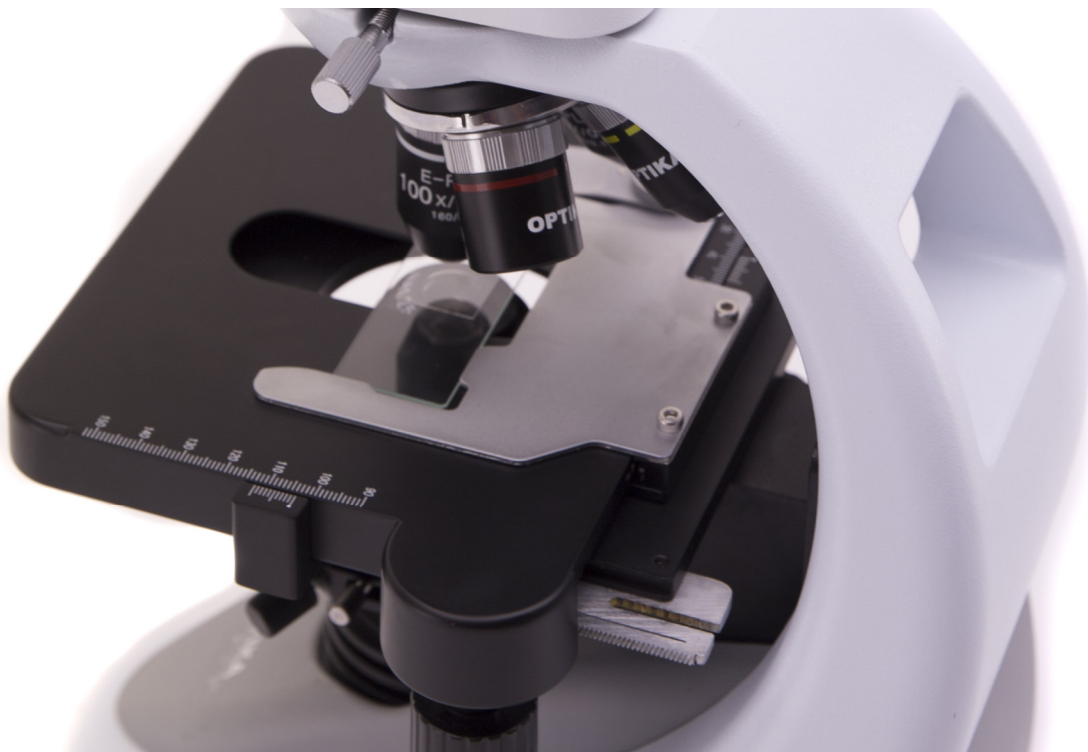
### A COMPLETE SYSTEM

- » Optional 20x, 60x and 100x/oil objectives available (Set is either available with or without the 100x)
- » Use the polarizing set without any distortion of the final image
- » Fully centerable condenser for precise light control

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### Safe & Convenient Operations

The rack less stage was designed with a belt-driven mechanism that allows a smooth movement without any protruding part. This design gives you a more compact solution and lowers any risk of injury after accidentally hitting the rack with your hands.



### Large Specimen View (20mm Field Number)

The F.O.V. (field of view) is based on a comfortable diameter of 20mm. This means that a wide area of the sample can be inspected and allows a natural and easy view, particularly needed in a laboratory environment.

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# 100x Oil/Water Objective – Only at OPTIKA

### SAME OBJECTIVE FOR OIL AND WATER USE

- » Oil represents the best media for high numerical aperture
- » Water combines results with convenience
- » Water is recommended especially for educational purposes

### UNPARALLELED TIME & MONEY SAVING

- » Save time by forgetting about tedious cleaning
- » No time-wasting procedures for maintenance
- » No additional expenses due to inappropriate cleaning

### STATE-OF-THE-ART ILLUMINATION SYSTEM

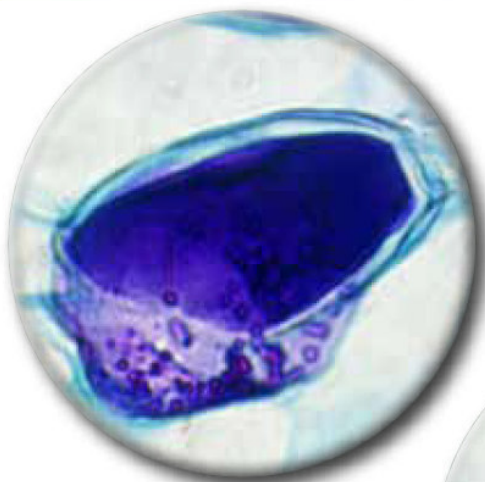
- » Uncomparable light intensity, exclusive lens & collector design
- » Constant pure-white colour temperature at all intensity levels
- » Unmatched color fidelity, uniformity and brightness

### CUT ELECTRICITY BILLS BY 90%

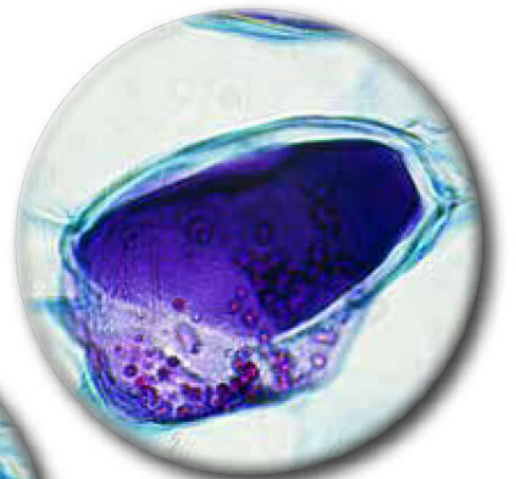
- » Money & energy saving, only 3.6 W
- » More efficient brightness than a 50 W halogen lamp
- » LED long lifetime (65,000 hours = 22 years at 8 hours/day usage)

### Clear Observation With 100x Objective

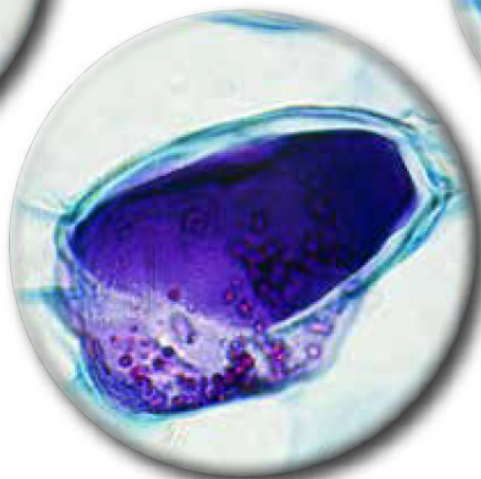
Students and basic users will enjoy B-290 Series for the clear and sharp images they can get using 100x objective with water, thanks to the extremely bright X-LED<sup>3</sup> light source and the fully centerable Abbe condenser. Forget about the tedious lens cleaning you are used to when using 100x objective: dirt and dust will not affect your objective.



100x DRY



100x OIL



100x WATER

### Pine, one year stem.

For a professional use, immersion oil is the recommended solution to get the best performance available from any 100x objective.

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### SUITABLE FOR UNIVERSITIES, EXPERTS & ROUTINE LABS

- » The ideal choice for common lab requirements
- » Simply engineered for life-science
- » Ready for phase contrast and darkfield

### EXCELLENT PRICE/PERFORMANCE RATIO

- » N-PLAN objectives (160 mm or IOS) for flat images on 20 mm FN
- » Fixed Koehler illumination for crisp and contrasted images
- » Rounded edge, rackless stage to prevent scratches



Optika / Ryf Ryeco Swiss Warranty / Made in Italy  
[www.ryfag.ch](http://www.ryfag.ch)

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