



NOWO! Now the microscope has built-in battery power for 3 AA ("fingers") The Biolux NV microscope is a compact, versatile microscope for schools, as well as for young people and students. Three lenses combined with two eyepieces and a Barlow lens allow for magnification in the range of 20x to 1280x. The microscope is equipped with LED (diode) lighting and adjustable lighting intensity, both upper and lower. The light type selector switch allows testing in transmitted light, reflected light or simultaneous selection of both lighting. Precise, mechanical table allows precise positioning of the microscope. The body of the Biolux AL / NV microscope made of metal cast. Rich equipment in the form of PC eyepiece 640x480 with USB cable, a set of preparations, guillotine (microtome), preparative tools and slides allows for its versatile use. Why is it worth to buy a microscope with a camera in the set? The camera is a very important element of the microscope equipment, both at school (the possibility of connecting the microscope to the projector or interactive whiteboard) and at home (children willingly watch the image on the computer screen, and have difficulty concentrating attention on the image seen in the eyepiece, on the monitor we can immediately indicate to the child the interesting elements of the preparation). Due to the high price of the Bresser PC Eyepiece USB and similar microscope cameras available on the market (click on the website address to check): teleskopy.pl - PLN 295 www.optical-systems.com - 79 EUR www.scopesnshies.com - 50 ? we do not recommend buying cheaper microscopes that do not have a camera on the equipment. Buying a BIOLUX AL / NV microscope you get the best set, and a camera with a market value of around PLN 300 (!) Is immediately included. Technical data: $\hat{\text{€}}$ Zoom: 20x - 1280x $\hat{\text{€}}$ Glasses: 5x, 16x $\hat{\text{€}}$ Diameter of glasses: 19.5 mm $\hat{\text{€}}$ Diameter of the tube: 23 mm (standard) $\hat{\text{€}}$ Lenses: achromatic, 4x 10x, 40x $\hat{\text{€}}$ Enlarges the tube 1.0x - 2.0x $\hat{\text{€}}$ Lighting LED $\hat{\text{€}}$ Dimensions [mm] 235 x 180 x 320 $\hat{\text{€}}$ Weight [g] 1100 Included: $\hat{\text{€}}$ PC VGA eyepiece (640x480 pixels) with USB cable $\hat{\text{€}}$ control software on a CD (Windows XP / Vista / 7/8) $\hat{\text{€}}$ cross table with millimeter scale $\hat{\text{€}}$ upper and lower lighting with intensity regulation $\hat{\text{€}}$ contrast colored counter substances (filter wheel) $\hat{\text{€}}$ 5 ready-made stained biological display preparations (typically: cross-section of cotton stem, cross-section of pine trunk, home fly legs, onion epidermis, cross-section of a bedding plant) and 10 clean basic slides and cover slips $\hat{\text{€}}$ a set of preparation tools (used to prepare your own preparations, including simple microtome) $\hat{\text{€}}$ battery powered 3 x AA (1.5), 4.5V total (at least 72 hours of continuous operation with full lighting) $\hat{\text{€}}$ plastic transport case Nowo?æ film 'Water Drop' presenting capabilities of ? months microscope BIOLUX NV from our offer: Nowo?æ film 'Life on li?ciach' presenting capabilities of ? months microscope BIOLUX NV from our offer: Nowo?æ film 'Corrosion' presenting capabilities of ? months microscope BIOLUX NV upper illuminators: Video presenting the BIOLUX NV microscope with equipment available in our offer: Warranty 2 years Sample photos of biological preparations made with the Biolux AL / NV microscope and the VGA 640x480 electronic eyepiece provided with this microscope (click to view the full-size photo 640x480 pixels)

COMPARISON OF BRESSER BIOLUX AL MICROSCOPE WITH OTHER MODELS OFFERED ON THE POLISH MARKET

MODEL	Bresser Biolux AL	Ecotone EV- 45	Ecotone EV- 45 USB	Bresser Erudit	Bresser Biorit	Delta Optical BioLight	Delta Optical BioStage	Optek Visomar	Optek Biomax	Student	PRICE
PRICE	395	449	498	699	599	319	590	320	330		
THE RANGE OF ZOOMS (*)	20-1280	40-1024	40-1024	40-1536	40-1280	40-640	40-1000	40-1024	20-1024		
DIGITAL CAMERA (**)	640x480	NO	320x240	640x480	320x240	NO	NO	320x240	NO		
CROSS COURTY	YES	YES	YES	YES	NO	YES	NO	YES	SUITCASE	YES	NO
YES	NO	CELLAR	COLOR FILTERS (***)	YES	YES	YES	YES	YES	YES	NO	NO
YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOWER LIGHTING (****)
YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	TOP LIGHTING (*****)
YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO

The data included in the above table comes from the websites of manufacturers / distributors of the above equipment and is valid as at 01/03/2010 (*) remember that the minimum magnification is as important as the maximum magnification, especially when viewed in reflected light (upper lighting) (**) the price of the microscope camera itself 640x480 pixels varies depending on the quality of the chipset (photosensitive element) from 129 to 299 PLN (***) substitute filters increase the contrast of observed biological preparations (****) lower lighting - used for transparent or semi-transparent preparations; with its help it is possible to observe in the passing light (****) upper lighting - used for non-transparent preparations; with its help it is possible to observe in reflected light (electronic eyepiece allows observation on the computer monitor, taking pictures, recording movies) (color camera with a resolution of 640x480 allows to show the child interesting elements of the preparation, which is difficult or even impossible when observing through the optics) (cross table makes it possible to move the preparation on the stage using two precision screws) (color filters under the table allow to "stain" the preparation for the best contrast) (switch of lighting modes - I - lower, II - upper, III - lower and upper and regulation of light intensity) (Barlow lens allows you to obtain both intermediate magnifications and increase the maximum magnification of the microscope) (three achromatic lenses in the turret - 4x, 10x and 40x) CONTROLLERS / INSTRUCTIONS / OPERATIONAL PROGRAMS $\hat{\text{€}}$ multilingual instruction, including instruction in Polish (14.6 MB, .PDF) The microscope camera works with Windows XP / Vista / 7/8, MacOS and Linux >> FREQUENTLY ASKED QUESTIONS <<

Question : Is this microscope a good choice for 8 - 10 - 12 - 15 years old? Answer: Yes, it is a great microscope for an original educational gift for many years, often chosen by gymnasiums in Poland to equip biological laboratories. It has large observation possibilities, both in the light passing through (transparent biological preparations) and reflected light (opaque preparations illuminated from above). Very rich equipment makes it a complete set ready to work. Children up to the age of 10 will probably need the help of adults at the first observations and when preparing their own preparations. Question : Do you need to buy something for this microscope? Answer: No, the set is complete and does not require retrofitting. Nevertheless, we recommend the purchase of ready-made biological preparations, immediately or in the future, thanks to which you can admire professionally prepared samples of plants, animals and animal tissues. Question : What magnification can be obtained with this microscope? Does the microscope allow you to get 100x magnification? How to get 1280x magnification Answer: The formula for magnifying the microscope is as follows: ENLARGEMENT = (Magnification of the Eyepiece) x (Magnification of the Lens) x (Magnification of the Barlow Lenses) The set includes 5x and 16x glasses (exchangeable) and 4x, 10x and 40x lenses in the revolver. Barlow lens provides 1x magnification (ie does not change the magnification) when it is fully inserted in the tube, and 2x when it is maximally extended from the microscope tube (up to the last marker), and in intermediate positions it gives indirect, smoothly variable magnification. Below is a summary of configurations and enlargements: $\hat{\text{€}}$ Okular 5x + 4x lens: Magnification 20x + Barlow 20x - 40x adjustment, $\hat{\text{€}}$ Okular 5x

+ Lens 10x: Magnification 50x + Barlow 50x - 100x adjustment • Okular 5x + Lens 40x: Magnification - 200x x + Barlow 200x - 400x adjustment • Eyepiece 16x + 4x lens: Magnification - 64x + Barlow 64x-128x adjustment • Eyepiece 16x + Lens 10x: Magnification - 160x + Barlow 160x - 320x • Eyepiece 16x + Lens 40x: Magnification - 640x + Barlow 640x regulation - 1280x Thus, the Bresser Biolux AL microscope allows you to obtain all magnifications in the range from 20x to 40x, from 50x to 128x, from 160x to 400x and from 640x to 1280x, all within the elements included in the set.

Question : Does the microscope work under Windows XP / Vista / Windows 7? Answer: The drivers on the CD allow you to install and use the microscope on all versions of the Windows operating system. Question : Does the microscope work under Macintosh / MacOS? Answer: Yes, the chipset is typical (SN9C120 or PAC7311) and it is possible to install it on an Apple system. Controllers are located in the download section above. Question : Does the microscope work under Linux? Answer: Yes, the chipset is typical (SN9C120 or PAC7311, depending on the version) and is embedded in the system's air. List of chipsets working with the gspca module: http://linuxtv.org/wiki/index.php/Gspca_devices