



## 2 MBL 2000 Series - Transmitted light binocular microscope basic model

The MBL2000 microscope is robust and universally applicable and has the unmistakable classic design of the A.KRÜSS microscopes. It is a binocular microscope (basic equipment) and microscopes with two eyepieces. This makes it possible to view the sample under examination with both eyes. Some of the many uses are in schools and universities or education, for example, when biological studies are involved. In addition, the MBL 2000 is used in many areas of life science research. These certainly include studies on animals, plants, microorganisms and cell cultures, for example to study pathogens, cures or reactions to active substances. The MBL 2000 laboratory microscopes with phototube can be individually configured. For example, it is possible to connect a camera to a trinocular microscope for image and film recording. The microscope also allows to perform blood tests according to Enderlein with using a special dark field condenser.



### Basic functions:

- Dioptre compensation with compensation scale
- Sturdy metal stand with graduated XY cross table with coaxial operation and height adjustment
- Coarse and fine focusing, double coaxial (0–200 µm, division 2 µm), coarse and fine focusing range: 30 mm
- Right-side coarse focussing knob with fast focus adjustment, left-sided knob with quick focus setting
- Low-voltage illumination with lighting control and removable pre-condenser
- Optional LED or halogen lighting
- Twin-lens Abbe condenser: NA 1.25, with iris diaphragm
- Pivoting filter holder
- Glass filters: blue, yellow, green

*Solid all-round microscope, universally applicable*

### 2.1 Technical basic data MBL 2000

OPTICAL HEAD	OBJECTIVE REVOLVER	OBJECTIVE (MAGNIFICATION; NA, WORKING DISTANCE)	DIMENSIONS
<ul style="list-style-type: none"> <li>▪ Inclined optical head</li> <li>▪ Symmetrical eye distance adjustment (55 – 75 mm),</li> <li>▪ Diopter compensation with scale</li> </ul>	<ul style="list-style-type: none"> <li>▪ Quadruple</li> </ul>	<ul style="list-style-type: none"> <li>▪ Achromatic</li> <li>▪ 4x 0.10 NA 17.04 mm</li> <li>▪ 10x 0.25 NA 8.05 mm</li> <li>▪ 40x 0.65 NA 0.32 mm</li> <li>▪ 100x 1.25 NA 0.13 mm</li> </ul>	<ul style="list-style-type: none"> <li>▪ Length: 23 cm</li> <li>▪ Width: 19 cm</li> <li>▪ Height: 40 cm</li> </ul>
EYEPIECES	CONDENSOR	ILLUMINATION	MICROSCOPE STAGE
<ul style="list-style-type: none"> <li>▪ 10x</li> </ul>	<ul style="list-style-type: none"> <li>▪ Double-lens ABBE condenser, NA 1.25, with iris diaphragm, with centering, height adjustment and swing-in filter holder</li> </ul>	<ul style="list-style-type: none"> <li>▪ Optional LED or halogen lamp (6 V 20 W)</li> <li>▪ Cold light source for blood examination with brightness control</li> </ul>	<ul style="list-style-type: none"> <li>▪ With 0.1 mm increment memory scale, left-right range of movement 74 mm, forwards - backwards 30 mm.</li> </ul>
STAND	OPERATING VOLTAGE	FURTHER EQUIPMENT	
<ul style="list-style-type: none"> <li>▪ Made of metal with coaxial coarse/fine knob with a range of 30 mm each.</li> <li>▪ The right coarse adjustment knob comes with a mobility adjustment, the left coarse adjustment knob comes with a quick focusing adjustment</li> </ul>	<ul style="list-style-type: none"> <li>▪ Power source: 90-240 V. 50/60 Hz</li> </ul>	<ul style="list-style-type: none"> <li>▪ Glass filters in blue, yellow and green</li> </ul>	



## 2.2 Technical data MBL 2000 models

### Basic models

MICROSCOPE	SPECIAL FEATURE
<b>MBL2000</b> 	<ul style="list-style-type: none"> <li>▪ Halogen lamp</li> </ul>
<b>MBL2000-LED</b> 	<ul style="list-style-type: none"> <li>▪ LED-lighting</li> </ul>

**MBL2000 basic models can be upgraded with a variety of components.**

Upgrades are indicated by additions to the model designations. E.g. MBL2000-T-PL-PH or MBL2000-LED-T-PL-PH.

### Opportunities for further enhancements

MBL2000-T	MBL2000-PL	MBL2000-PL-PH
		
MBL2000-T-PL	MBL2000-T-PL-PH	
		

- T = Trinocular / phototube<sup>1</sup> tube for the connection of photo and video cameras.
  - <sup>1</sup> Microscope cameras sold separately
- PL = Planachromatic objectives
- PH = Phase contrast feature<sup>2</sup> for 10x, 40x and 100x and additional dark field condenser
  - <sup>2</sup> 20x or 40x phase contrast features are available separately. Microscope with the -PH need no special phase contrast features

### Special model MBL2000 FOR BLOOD EXAMINATION

MIKROSKOPE	EQUIPMENT
MBL 2000-T-B	<ul style="list-style-type: none"> <li>▪ Dark field condenser for blood examination</li> <li>▪ Adjustable cold light source KL5125</li> <li>▪ Photo tube <sup>1</sup> for connection of photo and video cameras)</li> </ul>
MBL 2000-T-B-PL	<ul style="list-style-type: none"> <li>▪ Planachromatic objectives</li> <li>▪ Dark field condenser for blood examination</li> <li>▪ Adjustable cold light source KL5125</li> <li>▪ Photo tube<sup>1</sup> for attachment of photo and video cameras)</li> </ul>



2.3 Accessories for microscopes MBL 2000 series



Order number	Item
MML1116	▪ Wide field eyepiece 16x
MML1110	▪ Wide field eyepiece 10x
MML1105	▪ Wide field eyepiece 5x
MML1016	▪ Planocular eyepiece 16x
MML1115	▪ Planocular eyepiece 15x
MML1017	▪ Pointer eyepiece 10x
MML1003	▪ Object micrometer
MML1002	▪ Micrometer eyepiece 15x
MML1004	▪ Micrometer eyepiece 10x
MML2051	▪ Polarization device
MML2010	▪ Achromatic objective 4x
MML2011	▪ Achromatic objective 10x
MML2012	▪ Achromatic objective 20x
MML2014	▪ Achromatic objective 40x
MML2013	▪ Achromatic objective 60x
MML2017	▪ Achromatic objective 63x
MML2015	▪ Achromatic objective 100x
MML2020	▪ Planachromatic objective 4x
MML2021	▪ Planachromatic objective 10x
MML2022	▪ Planachromatic objective 20x
MML2024	▪ Planachromatic objective 40x
MML2027	▪ Planachromatic objective 63x
MML2025	▪ Planachromatic objective 100x
MML2028	▪ Planachromatic objective 100x with iris diaphragm
MML2030	▪ Large phase contrast feature
MML2032	▪ 20x phase contrast feature
MML2031	▪ 40x phase contrast feature
MML2052	▪ Dark field condenser
MML2053	▪ Dark field condenser for blood MBL2000-T-B and MBL2000-T-B-PL