

Laboratory microscopes

High quality optics, precise mechanics - 5 years warranty





“For every application
the perfect microscope



OUR LAB MICROSCOPES

Optical microscopes are universally applicable measuring instruments for producing detailed and precise object and structural images of a wide spectrum of samples. The sample sizes are mostly below of the resolution of a human eye.

Laboratory microscopes are available in different versions. The monocular, binocular and trinocular microscopes are just a small small selection.

They can be used universally for teaching, research and training as well as in the fields of biology, histology, forensics or material testing.

Our laboratory microscopes are individually configurable. It is possible to connect a camera to a trinocular microscope. Other configurations, e.g. with special darkfield condensers, allow blood examinations according to Enderlein.

TABLE OF CONTENT

1	MONOCULAR-MICROSCOPE MML1200.....	2
1.1	Technical basic data MML1200.....	2
1.2	Accessories for microscope MML1200	2
2	MBL 2000 SERIES - TRANSMITTED LIGHT BINOCULAR MICROSCOPE BASIC MODEL	3
2.1	Technical basic data MBL 2000.....	3
2.2	Technical data MBL 2000 models.....	4
2.3	Accessories for microscopes MBL 2000 series	5
3	INVERTED MICROSCOPE MBL 3200 WITH TRINOCULAR TUBE	6
3.1	Technical basic data MBL 3200 model.....	6
3.2	Accessories for microscope MBL 3200 model	6
4	MBL 3300 - METALLURGICAL INCIDENT LIGHT MICROSCOPE	7
4.1	Technical basic data MBL 3300 model.....	7
4.2	Accessories for microscope MBL 3300 model	7
5	MSL4000 SERIES	8
5.1	Technical basic data MSL4000 series.....	8
5.2	Accessories for microscopes MSL4000 series	8
6	MSZ5000 SERIES.....	9
6.1	Technical basic data MSZ 500 series	9
6.2	Technical basic data MSZ 500 series	10
6.3	Accessories for microscopes MSZ 5000 series	10



1 Monocular-Microscope MML1200

These practical microscopes are great for kids or newcomers. Common for simple laboratory applications, excursion and examination of low-light specimens. These microscopes are very convenient to use, because they usually have a minimum of adjusting screws, so that little can go wrong during use. The single tube is ideal for the eyesight of children, who often find it difficult to look into the microscope with two eyes. Monocular microscopes are small, lightweight and can be flexibly placed anywhere. Therefore, they are ideal for teaching and training in courses. They are also frequently used to make a preliminary selection of specimens that are later to be examined in more detail with high-quality laboratory microscopes.



Basic functions:

- 45° inclined viewing for ergonomic work
- 360° rotating optical head
- Sturdy metal tripod ensures high stability
- Coarse and fine adjustment facilitates precise working
- Integrated illumination
- Power supply 230 V, 50 Hz
- A wide range of accessories is available.

Monocular microscope for lab and educational use.

1.1 Technical basic data MML1200

MICROSCOPE	OPTICAL EQUIPMENT	OBJECTIVE	ILLUMINATION
MML 1200 Objective Revolver: 3-fold	<ul style="list-style-type: none">▪ 10x wide field eyepiece	<ul style="list-style-type: none">▪ Achromatic▪ 4x/NA 0.10▪ 10x/NA 0.25▪ 40x/NA 0.65	<ul style="list-style-type: none">▪ 6 V 10 W with reflector brightfield Abbe condenser NA 1.25, with iris diaphragm and filter holder

1.2 Accessories for microscope MML1200

Order number	Item
MML1116	<ul style="list-style-type: none">▪ Wide-field eyepiece 16x
MML1110	<ul style="list-style-type: none">▪ Wide-field eyepiece 10X
MML1105	<ul style="list-style-type: none">▪ Wide-field eyepiece 5X
MML1016	<ul style="list-style-type: none">▪ Plane eyepiece 16X
MML1115	<ul style="list-style-type: none">▪ Plane eyepiece 15X
MML1017	<ul style="list-style-type: none">▪ Eyepiece with pointer 10X
MML1003	<ul style="list-style-type: none">▪ Stage micrometer
MML1002	<ul style="list-style-type: none">▪ Micrometer eyepiece 15X
MML1004	<ul style="list-style-type: none">▪ Micrometer eyepiece 10X
MML1001	<ul style="list-style-type: none">▪ Polarisation feature
MML1005	<ul style="list-style-type: none">▪ Mirror



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. You can also perform blood tests according to Enderlein using a special dark field condenser.



Basic functions:

- Dioptric compensation with compensation scale
- Sturdy metal stand with graduated XY cross table with coaxial operation and height adjustment
- Coarse and fine focussing, double coaxial (0–200 µm, division 2 µm), coarse and fine focussing 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">▪ Inclined optical head▪ Symmetrical eye distance adjustment (55 – 75 mm),▪ Dioptric compensation with scale	<ul style="list-style-type: none">▪ Quadruple	<ul style="list-style-type: none">▪ Achromatic▪ 4x 0.10 NA 17.04 mm▪ 10x 0.25 NA 8.05 mm▪ 40x 0.65 NA 0.32 mm▪ 100x 1.25 NA 0.13 mm	<ul style="list-style-type: none">▪ Length: 23 cm▪ Width: 19 cm▪ Height: 40 cm
EYEPIECES	CONDENSOR	ILLUMINATION	MICROSCOPE STAGE
<ul style="list-style-type: none">▪ 10x	<ul style="list-style-type: none">▪ Double-lens ABBE condenser, NA 1.25, with iris diaphragm, with centring, height adjustment and swing-in filter holder	<ul style="list-style-type: none">▪ Optional LED or halogen lamp (6 V 20 W)▪ Cold light source for blood examination with brightness control	<ul style="list-style-type: none">▪ With 0.1 mm increment memory scale, left-right range of movement 74 mm, forwards - backwards 30 mm.
STAND	OPERATING VOLTAGE	FURTHER EQUIPMENT	
<ul style="list-style-type: none">▪ Made of metal with coaxial coarse/fine knob with a range of 30 mm each.▪ The right coarse adjustment knob comes with a mobility adjustment, the left coarse adjustment knob comes with a quick focusing adjustment	<ul style="list-style-type: none">▪ Power source: 90-240 V. 50/60 Hz	<ul style="list-style-type: none">▪ Glass filters in blue, yellow and green	



2.2 Technical data MBL 2000 models

Basic models

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

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⁽¹⁾ tube for the connection of photo and video cameras.
 → ⁽¹⁾ Microscope cameras sold separately
- PL = Planachromatic objectives
- PH = Phase contrast feature⁽²⁾ for 10x, 40x and 100x and additional dark field condenser
 → ⁽²⁾ 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

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



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



3 Inverted microscope MBL 3200 with trinocular tube

This inverted microscope was specially designed for identifying and analyzing biological substances and cultures. It is used, for example, in control laboratories for drug production, food production and waste water analysis. This microscope is ideal for examining living cells in petri dishes or culture chambers. The objectives of the MBL 3200 have a large working distance, thus they are also ideal for e.g. seeing samples through the bottom of petri plates or for examining sediments. Via the photo and C-mount video adapter, it is possible to connect SLR, microscope or video cameras.



Inverted microscope for cell examination

Basic functions:

- Large working distance
- Observation in larger containers, e.g. cell culture dishes possible
- Living cells in cell culture dishes or other, larger containers can be analyzed
- Suitable for documentation purposes, via connection for photo and video camera

3.1 Technical basic data MBL 3200 model

OPTICAL HEAD	OBJECTIVE REVOLVER	OBJECTIVE (MAGNIFICATION; NA, WORKING DISTANCE)	
<ul style="list-style-type: none">▪ Inclined optical head,▪ Symmetrical eye distance adjustment (55 – 75 mm),▪ Dioptre compensation with scale.▪ Photo tube	<ul style="list-style-type: none">▪ 5-fold	<ul style="list-style-type: none">▪ Planachromatic▪ 4x/NA 0.10 // Ø: 5.5 mm▪ 10x/NA 0.25 // Ø: 2.2 mm▪ 40x/NA 0.65 // Ø: 0.55 mm▪ PH20x/NA 0.45 // Ø: 1.1 mm	
EYEPIECES	CONDENSOR	ILLUMINATION	XY ACROSS TABLE
<ul style="list-style-type: none">▪ 10x plane eyepiece▪ Visual field number: 22	<ul style="list-style-type: none">▪ Dual Lens Condenser	<ul style="list-style-type: none">▪ 6 V 30 W, adjustable	<ul style="list-style-type: none">▪ Range of movement: 118 x 80mm
STAND	OPERATING VOLTAGE	FURTHER EQUIPMENT	
<ul style="list-style-type: none">▪ Made of metal with coaxial coarse/fine drive	<ul style="list-style-type: none">▪ 90–240 V	<ul style="list-style-type: none">▪ Iris diaphragm▪ Filter holder, blue filter, green filter▪ Third tube for connecting photo and video cameras▪ Phase contrast device for 20x	

3.2 Accessories for microscope MBL 3200 model

Order number	Item
MBL3220	▪ Planachromatic objective 20x/NA 0.45 objective
MBL3260	▪ Planachromatic objective 60x/NA 0.85 objective
MBL3240	▪ Phase contrast device for 40x



4 MBL 3300 - Metallurgical incident light microscope

The MBL3300 is specially designed for the analysis of metallic materials and surfaces. Thanks to the integrated incident light illumination, it is suitable for quality determination and for checking metal structures. Using different filters, the microscopy image can be adjusted to individual needs. The MBL3300 is equipped with a photo tube for connecting a microscope, photo or video camera.



Basic functions:

- Incident light illumination
- Various filter options
- Connection possibility for microscope, still or video camera
- Wide range of accessories

Specialist for the examination of metallic materials.

4.1 Technical basic data MBL 3300 model

OPTICAL HEAD	OBJECTIVE REVOLVER	OBJECTIVE (MAGNIFICATION; NA, WORKING DISTANCE)	
<ul style="list-style-type: none">▪ Inclined optical head,▪ Symmetrical eye distance adjustment (55 – 75 mm),▪ Dioptre compensation with scale▪ Photo tube	<ul style="list-style-type: none">▪ 3-fold	<ul style="list-style-type: none">▪ Planachromatic▪ 5x/NA 0.10, object field Ø: 3.6 mm▪ 10x/NA 0.25, object field Ø: 1.8 mm▪ 50x/NA 0.65, object field Ø: 0.36 mm	
EYEPIECES	CONDENSOR	ILLUMINATION	XY ACROSS TABLE
<ul style="list-style-type: none">▪ 10x plane eyepiece▪ Visual field number: 18	<ul style="list-style-type: none">▪ Double-lens ABBE condenser, NA 1.25, with centering and height adjustment	<ul style="list-style-type: none">▪ Incident light▪ 6V 30W adjustable	<ul style="list-style-type: none">▪ Range of movement: 120x80 mm
STAND	OPERATING VOLTAGE	FURTHER EQUIPMENT	
<ul style="list-style-type: none">▪ Consisting of metal with a coaxial coarse/fine drive (30 mm each). With smoothness adjustment and quick focus device	<ul style="list-style-type: none">▪ 90–240 V	<ul style="list-style-type: none">▪ Iris diaphragm▪ Filter holder▪ Blue filter▪ Green filter (optional)	

4.2 Accessories for microscope MBL 3300 model

Order number	Item
MBL3320	▪ Planachromatic objective 20x/NA 0.45
MBL3360	▪ Planachromatic objective 60x/NA 0.85
MMB2314	▪ Polarization device
MMB2310	▪ Yellow filter
MMB2311	▪ Green filter
MMB2312	▪ Neutral density filter



5 MSL4000 Series

The stereo microscopes of the MSL4000 series offer an optimal value for money. Thanks to the wide range of accessories and different eyepieces, they are suitable for a wide range of applications. All microscopes have a 45° inclined view, interpupillary distance adjustment and dioptric compensation. The metal housing is stable and durable. To allow you the option for working anywhere without having to depend on any external power supply, the MSL microscopes have a battery providing a user-friendly 25 hours of power.



Basic functions:

- Increased working distance
- Incident and transmitted light (depending on equipment)
- Diopter range adjustable on either eyepiece
- A wide range of accessories is available for all models.
- Integrated battery

Stereo microscope for standard examinations

5.1 Technical basic data MSL4000 series

MICROSCOPE	OPTICAL EQUIPMENT	OBJECTIVE	ILLUMINATION
MSL4000-10/30-IL-TL	▪ 10x Wide field eyepieces	▪ 1x and 3x Objective	▪ LED- Incident and transmitted light
MSL4000-20/40-IL-TL	▪ 10x Wide field eyepieces	▪ 2x and 4x Objective	▪ LED- Incident and transmitted light

5.2 Accessories for microscopes MSL4000 series

Order number	Item
MSL4331	▪ Pair of wide field eyepieces 15x
MSL4332	▪ Pair of wide field eyepieces 20x
MSL4333	▪ Pair of wide field eyepieces 10x
MSL4334	▪ Pair of eyepieces 5x
MSZ5419	▪ Dark field



6 MSZ5000 Series

A sturdy zoom stereo microscope for the professional examination of electronic, precision mechanical, plastic and medical products. It is an excellent quality control instrument for inspection, assembly, analysis, during soldering and polishing and for fine machining. The large zoom range, long working distance and broad depth of field facilitates allow very comfortable work in many areas. It offers continuously variable magnification with 7– 45x total zoom. The rugged metal housing makes it easier to work with reliability, even in harsh environments. Accessories available: various eyepieces and auxiliary lenses to modify the magnification and working distances.



Basic functions:

- Increased working distance
- Incident and transmitted light (depending on configuration)
- Available with LED illumination
- Zoom feature for continuous magnification settings from 7 to 45x
- Optional auxiliary lenses available for maximum magnification adjustment
- Connection possibility for microscope , photo or video camera
- Wide range of accessories

Stereo microscope for advanced examinations

6.1 Technical basic data MSZ 500 series

MICROSCOPE	OPTICAL EQUIPMENT	EQUIPMENTAL
MSZ5000	<ul style="list-style-type: none">▪ 10x wide field eyepieces▪ 0.7-4.5x zoom objective▪ 7-45x total magnification	
MSZ5000-T	<ul style="list-style-type: none">▪ 10x wide field eyepieces▪ 0.7-4.5x zoom objective▪ 7-45x total magnification	<ul style="list-style-type: none">▪ Photo tube for the connection of photo and video cameras
MSZ5000-RL	<ul style="list-style-type: none">▪ 10x wide field eyepieces▪ 0.7-4.5x zoom objective▪ 7-45x total magnification	<ul style="list-style-type: none">▪ Incident light (LED ring lamp)
MSZ5000-T-RL	<ul style="list-style-type: none">▪ 10x wide field eyepieces▪ 0.7-4.5x zoom objective▪ 7-45x total magnification	<ul style="list-style-type: none">▪ Incident light (LED ring lamp))▪ Photo tube for the connection of photo and video cameras
MSZ5000-S	<ul style="list-style-type: none">▪ 10x wide field eyepieces▪ 0.7-4.5x zoom objective▪ 7-45x total magnification	<ul style="list-style-type: none">▪ Large swiveling stand



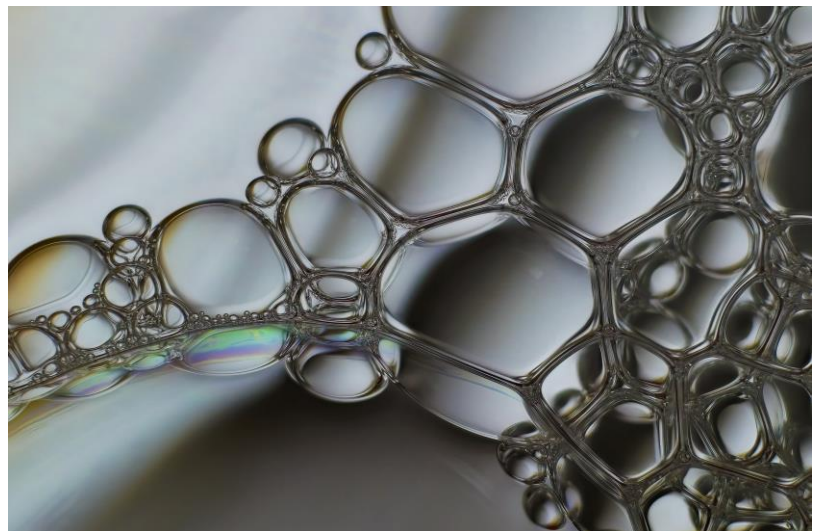
6.2 Technical basic data MSZ 500 series

MICROSCOPE	OPTICAL EQUIPMENT	EQUIPMENTAL
MSZ5000-T-S	<ul style="list-style-type: none"> 10x wide field eyepieces 0.7-4.5x zoom objective 7-45x total magnification 	<ul style="list-style-type: none"> Photo tube for the connection of photo and video cameras Large swiveling stand
MSZ5000-S-RL	<ul style="list-style-type: none"> 10x wide field eyepieces 0.7-4.5x zoom objective 7-45x total magnification 	<ul style="list-style-type: none"> Incident light (LED ring lamp) Large swiveling stand
MSZ5000-T-S-RL	<ul style="list-style-type: none"> 10x wide field eyepieces 0.7-4.5x zoom objective 7-45x total magnification 	<ul style="list-style-type: none"> Incident light Photo tube for the connection of photo and video cameras Large swiveling stand
MSZ5000-IL-TL	<ul style="list-style-type: none"> 10x wide field eyepieces 0.7-4.5x zoom objective 7-45x total magnification 	<ul style="list-style-type: none"> 12 V 15 W Incident and transmitted light (halogen) infinitely variable
MSZ5000-IL-TL-LED	<ul style="list-style-type: none"> 10x wide field eyepieces 0.7-4.5x zoom objective 7-45x total magnification 	<ul style="list-style-type: none"> A incident and transmitted light (LED) infinitely variable
MSZ5000-T-IL-TL	<ul style="list-style-type: none"> 10x wide field eyepieces 0.7-4.5x zoom objective 7-45x total magnification 	<ul style="list-style-type: none"> 12 V 15 W incident and transmitted light (halogen) infinitely variable Photo tube for the connection of photo and video cameras
MSZ5000-T-IL-TL-LED	<ul style="list-style-type: none"> 10x wide field eyepieces 0.7-4.5x zoom objective 7-45x total magnification 	<ul style="list-style-type: none"> Incident and transmitted light (LED) infinitely variable Photo tube for the connection of photo and video cameras

6.3 Accessories for microscopes MSZ 5000 series

Order number	Item
MSZ5419	Darkfield
MSZ5405-N	Auxiliary lens 0.5x
MSZ5418-N	Auxiliary lens 2x
MSZ5019-N	Halogen lamp for incident light, 12V 10W
MSZ5010-N	Eyepiece 10x
MSZ5008-N	Halogen lamp for transmitted light, 12 V 10 W
MSZ5415	Object micrometer
MSZ5416-N	Micrometer eyepiece 10x
MSZ5417-N	Micrometer eyepiece 20x
MSZ5420-N	Pair of eyepieces 20x
MSZ5020-N	Incident light illumination
MSZ5050	Large swiveling stand
LDR72	LED daylight ring lamp

A.KRÜSS Optronic – Cutting-edge technology from Hamburg



For more information, just scan the QR code.

DISCOVER THE WORLD OF A.KRÜSS MEASURING INSTRUMENTS ON OUR WEBSITE.

Every day, our experts give their best to ensure your satisfaction. You can count on the first-class expertise of our specialists. For us, quality always comes first.

LEARN FROM THE EXPERTS!

We offer detailed technical information on every measuring method and appliance: You can discover practical tips on cleaning, receive specialist information on sample measurement, standards and guidelines or experience our instruments in practical use as video demonstrations.

SEE AND DISCOVER OUR INSTRUMENTS DIRECTLY. WE ARE JUST A CLICK AWAY!

If you wish, we will gladly demonstrate our products on-site or via a video conference direct from our lab in Hamburg. See our measurement devices for yourself, online and in real time use. This way you can experience our measuring devices online live and talk to our experts.

A.KRÜSS Optronic GmbH
Alsterdorfer Straße 276–278
22297 Hamburg | Germany

Tel. +49 40 514317-0
Fax +49 40 514317-60

E-Mail info@kruess.com
Web www.kruess.com

