Leica M Stereomicroscopes

Comprehensive program of accessories
for all applications

Leica
MICROSYSTEMS

Welcome!

Thank you for your attention. We are proud to present the Leicastereomicroscopes of the M line. The success of a stereomicroscope in practice depends on the versatility of its accessories. For this reason, these stereomicroscopes, right from the routine instrument to the top-performance model, are constructed on modular principles. They can therefore be adapted to the individual requirements of its users and the work station at any time.

This brochure

portrays the Leica MS5, MZ6, MZ7.5, MZ9.5, MZ12.5, MZ16 and MZ16 A stereomicroscopes in many configurations, along with the appropriate accessories. There is a comprehensive assembly diagram to help you put together the outfit you require. If you still have questions, get in touch with your local Leica agency or directly with Leica Microsystems. On our homepage www.leica-microsystems.com you can find valuable information on the products and services offered by Leica Microsystems and the address of your nearest agency. We are gladly at your service. CUSTOMER SERVICE is a big thing with us. Not only before the sale, but afterwards as well.

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The Leica M line

The requirements

A high-performance stereomicroscope is expected to produce a perfect image and to be comfortable and versatile in use. The three-dimensionality of the image, its depth of field, its contrast, its resolution and its color fidelity, must all be optimum. In addition, the user's ergonomic requirements must be metand work must be largely fatigue-free. Furthermore, a large range of available accessories must permit a practice-orientated work station and enable the uses of the stereomicroscope to be expanded.

Leica Design
by Ernest Igl/Christophe Apothéloz

High-performance optical system
The Leica stereomicroscopes in the M line create brilliant three-dimensional images of spatial objects and permit fine assembly and preparation work of a precision unattainable with thenaked eye. Being large, flat, and sharp right to the edge, the fields of view allow fatigue-free viewing over long periods of time.

The CMO optical system (Common Main Objective) consists of two parallel beam paths and common one main objective. This sophisticated construction guarantees fatigue-free viewing, constant sharpness when the magnification is changed and enables the simplest adaptation to accessories of all kinds.

Constant sharpness, from the overall view down to the detailed inspection
The Leica stereomicroscopes in the M line are parfocally matched. This means that, when the magnification is altered, the feature remains in focus right from the lowest magnification to the highest.

Ergonomics
You, as the user of the Leica M line have the largest range of binocular tubes on the market at your disposal. Individual factors such as one's individual build, the height of the equipment and the working methods present no problem for you. Distortion-free, wide-field eyepieces for spectacle wearers permit observation either with or without spectacles. Further ergonomic advantages are the low-positioned drive knobs for manual focusing, motor-focus.

Patented ESD protection
The optics carriers of the Leica M line, the binocular tube, ErgoTube®, ErgoWedge® 5°–25°, the ESD swinging-arm stand and the cold-light sources Leica L2 and CLS consist of ESD-discharging material (surface resistance $<10^{11}$ Ohm/square, discharge time <2 seconds, 1000V to 100V).

Abundant choice of accessories
The advantage of the modular design is that you can compile your outfit to suit the application and supplement it with specific accessories. An interesting aspect for your capital investment budget is the fact that the accessories already available are universal and also compatible with the new stereomicroscopes.

Performance features

- A choice of 8 different optics carriers to suit differing demands, from the routine instrument with 5-step magnification changer to the top-performance model with motor-zoom 16:1, automatic functions and display for research work
- Zoom magnification changer with engageable ratchet positions for different zoom magnifications
- Parfocally-matched optical system: The sharpness remains constant when the magnification is changed
- Impressive spatial 3D effect, great depth of field, large fields of view, high resolution, high contrast
- Choice of achromatic, planachromatic and planapochromatic objectives to meet the various imaging requirements
- Widest choice of ergonomics on the market with the ErgoTubes®, ErgoModules® and motor-focus
- Wide-field eyepieces for spectacle wearers: For use either with or without spectacles
- Coarse and fine drive: Focusing is possible over long distances, yet the focusing the focusing detail remains accurate. The ease of movement is adjustable
- Various possibilities for fitting to stands and for OEM
- Conveniently placed control knobs
- Accessories for digital imaging and video, software for image management
- All stereomicroscopes have ESD-protection material

The modular system

A complete outfit consists of the following-components:

Optics carrier
MS5, MZ6, MZ7$_5$, MZ9$_5$, MZ12$_5$, MZ16 or MZ16 A

Microscope carrier
– Microscope carrier for stereoscopic observation
– Microscope carrier AX for stereoscopic and axial observation

Focusing drive
For incident-light and transmitted-light stands:
– Focusing drive, coarse, and focusing drive, coarse/fine, with columns 300mm and 500mm
– Motor-focus system with columns 300mm and 500mm

For swinging-arm / table clamp stands and OEM:
– Inclinable focusing drive
– Focusing drive, coarse, and focusing drive, coarse/fine, with inclinable column
– Motor-focus system with inclinable column

For universal stand and columns, ∅ 50mm:
– Drive housing with coarse/fine focusing drive

Binocular tube
– Inclined binocular tube 45°
– ErgoTube® 45°
– Apochromatic ErgoTube® 10°–50°
– Inclined binocular tube, low
– Straight binocular tube
– Inclined trinocular tube, low
– Binocular tube 0°–180°

ErgoModule®
– ErgoWedge® ±15°
– ErgoWedge® 5°–25°
– ErgoModule® 50mm
– ErgoModule® 30mm–120mm

Eyepiece
– Wide-field eyepiece for spectacle wearers, 10×, 16×, 25×, 40×, distortion-free
– Wide-field eyepieces 10×

Interchangeable objective
– Achromats 0.32×, 0.5×, 0.63×, 0.8×, 1×, 1.5×, 2× (for MS5, MZ6, MZ7$_5$, MZ9$_5$)
– Planachromats or planapochromats
– Achromats with focal distances of f=100mm to 400mm (for the MZ12$_5$)

Stand
– Incident-light stand
– Swinging-arm or table clamp stand and also ESD version
– Universal stand
– Transmitted-light stands: Bright field, bright/dark field, high performance, sub-base for transmitted light for incident-light stand

Stage
– Diverse as well as the Leica MATS thermo-stage

Illumination
– Inclined incident-light illumination
– Coaxial illuminator
– Vertical illuminator
– Cold-light sources
– Fibre-optic light guides
– LED illumination
– Stereo-fluorescence module

Choice of accessories
– Photomicrographic systems
– Accessories for TV, video, film
– SLR camera system
– Integrated video module
– Double-iris diaphragm
– Discussion tube
– Drawing tube
– Measuring graticules
– Attachment for vertical and oblique observation
– Polarization set
– Filter-slide housing

Optics carriers

The requirements

A modern stereomicroscope must offer its user the maximum possible benefits and must uncompromisingly fulfill the requirements demanded of it. For instance, the Leica stereomicroscopes - their modular components can be combined according to your wishes. Get in touch with us. We will gladly help you to assemble the ideal outfit for your specific investigation tasks, training and documentation.

The optics carrier includes the optical system, a dovetail ring for binocular tubes or accessories and a thread for the interchangeable objectives.

Leica MS5 with 5-step magnification changer
A compact optics carrier with the same advantages as the new zoom models as regards imaging, ergonomics and accessories. With the objective 1× and eyepieces 10 the magnifications obtainable are 6.3×, 10×, 16×, 25× and 40×.

Leica MZ6 with zoom 6:1
With built-in, low, compact optics carrier. With an objective 1× and eyepieces 10× the magnification can be continuously changed within the range of 6.3× to 40×.7 ratchets are engageable at the magnification changer positions 0.8, 1, 1.25, 1.6, 2, 2.5 and 3.2.

Leica MS5 with 5-step magnification changer
Order no. 10 445 613

Leica MZ6 with zoom 6:1
Order no. 10 445 614

Leica MZ7₅ with zoom 7.9:1
Order no. 10 446 371

Leica MZ9₅ with zoom 9.5:1
Order no. 10 446 372

Leica MZ7.5 with zoom 7.9:1
Infinitely variable choice of magnification from 6.3× to 50× with 1 objective and 10 eyepieces. 8 ratchet positions engageable at 0.8, 1, 1.25, 1.6, 2, 2.5, 3.2, 4.

Leica MZ9.5 with zoom 9.5:1
Infinitely variable choice of magnification from 6.3× to 60× with 1 objective and 10 eyepieces. 9 ratchet positions engageable at 0.8, 1, 1.25, 1.6, 2, 2.5, 3.2, 4, 5.

Leica MZ12.5 with zoom 12.5:1
With objective 1× and eyepieces 10× magnifications are obtained of 8× to 100×. 10 ratchets are engageable at 1, 1.25, 1.6, 2, 2.5, 3.2, 4, 5, 6.4 and 8.

Leica MZ16 with zoom 16:1
Apochromatic high-performance instrument with the largest zoom range and the highest resolution on the market. With a turret for 1× and 2× objective objects can be scrutinized in a magnification range of 7.1× to 230× and with a resolution of up to 840 Lp/mm. 12 zoom ratchets for repetitive tasks.

Leica MZ16 A with 16:1 zoom, motorized
This absolutely top-class apochromatic instrument, Leica MZ16 A, is the first stereomicroscope with a 16:1 motor-zoom and automatic functions (measuring). Display for measuring values and magnification at the given time, taking the factors: eyepiece, objective, coaxial incident-light into consideration.

Leica MZ12.5 with zoom 12.5:1
Order no. 10 446 370

Leica MZ16 with zoom 16:1
Order no. 10 447 102

Leica MZ16 A with zoom 16:1, motorized
Order no. 10 447 103

Binocular tubes, ErgoModule®

The requirements

With a good stereomicroscope any user is able to adopt a comfortable body and head position, under any circumstances. Individual characteristics such as the height of the particular outfit, the build of the user, and the working technique can be accommodated for by selecting the appropriate binocular tube and additional ErgoModule® from the wide range available.

Inclined binocular tube 45°
The standard tube, with a fixed 45° viewing angle. Viewing variations using the ErgoWedge® ±15° and 5°–25°.

ErgoTube® 45°
As opposed to the standard tube, the long eyepiece tubes raise the viewing point by 65mm and displace it 65mm towards the observer. Being able to use the stereoscope at a further distance away permits a comfortable, upright sitting position. The maximum interpupillary distance which can be set is 90mm; the magnification factor is 1.6.

Apochromatic ErgoTube® 10°–50°
Using the ErgoTube® the user can change his sitting position at any time and match the viewing angle to his height. A former rigid, obligatory position now gives way to a flexible sitting position exerting less strain. For added comfort, the long eyepiece tubes also enable an upright sitting position.
The ErgoTube® 10°–50° is made of antistatic material (see also page 7).

Inclined binocular tube 45°
Order no. 10 445 619

Inclined binocular tube, low
Order no. 10 429 781

ErgoTube® 10°–50°
Order no. 10 445 822

ErgoTube® 45°
Order no. 10 446 253

Straight binocular tube
Order no. 10 429 783

Straight binocular tube
For observation using a steeply tilted stereomicroscope, e.g. on the swinging-arm stand or for OEM adaptation.

Inclined binocular tube, low
The low eyepiece tubes ensure a comfortable head and arm position even at long working distances and with high outfits.

Trinocular video/phototubes
Observation/phototubes with a low viewing height and an ideal viewing angle of 38°. See illustration on page 34. Versions with 50% or 100% light in the photo beam path.

The adjustment range of the interpupillary distance is 52mm to 76mm for all the binocular tubes.

The ErgoTube® and ErgoModule® are registered in the "United States Patent and Trademark Office".

ErgoModule®

Using the ErgoModules® the user of a Leica stereomicroscope can match the viewing height and viewing angle of the various binocular tubes to his own height.

ErgoWedge® 5°–25°
When the ErgoWedge® is used together with the 45° viewing angle binocular tube, the viewing angle can be set anywhere between 20° and 40° and the viewing height can be individually adjusted at the same time. An additional advantage is that the viewing point shifted towards the observer by up to 65mm compared with the normal outfit, resulting in a more comfortable sitting position.
The ErgoWedge® 5°–25° is made of antistatic material (see also page 7).

ErgoModule® 50mm
When the low Leica MS5 and MZ6 stereomicroscopes are combined with incident-light stands and achromatic objectives, the resulting viewing height is too low for tall users. The new ErgoModule® raises the viewing point by 50mm, so that the user can sit upright and be appreciably more comfortable.

ErgoWedge® ±15°
This practical accessory enables the viewing angle of the various binocular tubes to be adjusted in two directions.

ErgoModule® 30mm–120mm
The ErgoModul® 30mm to 120mm "stretches" low-built stereomicroscopes and enables users of different height using one and the same instrument to adjust an optimum viewing height.

ErgoModule® 50mm
Order no. 10 446 170

ErgoWedge® 5°–25°
Order no. 10 446 123

ErgoWedge® 5°–25°

Inclined binocular tube 45° and ErgoWedge® ±15°, in the –15° position
Order no. 10 346 910

Inclined binocular tube 45° and ErgoWedge® ±15°, in the +15° position

ErgoModule® 30mm–120mm
Order no. 10 446 171

Objectives

The requirements

The user must have the possibility of being able to adjust the working distances, total magnifications and the diameters of the field of view to his particular application. That is, he must be able to choose from a range of unquestionably high-quality objectives and eyepieces.

To meet the various requirements regarding imaging properties, there is a choice of high-quality interchangeable planachromatic and planapochromatic objectives and also lower-priced interchangeable achromatic objectives. The assembly diagram on page 66 shows the various objectives that can be combined with the respective models of stereomicroscope.

- **Achromatic objectives** are well suited for observing the high-contrast structures of spatial objects.
- **Flat-field (planachromatic) objectives** are advantageous for studying flat objects such as wafers and thin sections.
- With **planapochromats** the finest structures are visibly contrasted.

Ergo objective
Order no. 10 447 148

Interchangeable achromatic objectives for
Leica MS5, MZ6, MZ7$_5$, MZ9$_5$

Planachromatic and
planapochromatic objectives

Objectives for MS5, MZ6, MZ7$_5$, MZ9$_5$

Achromatic objectives

The 0.32×, 0.5×, 0.63×, 0.8×, 1×, 1.5×, 2× achromatic objectives offer diverse possibilities for varying the field diameter, magnification range and a choice of working distances from 27mm to 297mm.

Planachromatic objective 1×

To obtain a good overall image quality, the stereomicroscope is best combined with the high-grade planachromatic objective 1×. Being flat, sharp up to the edge and highly contrasted, the fields of view have a high image quality.

Planachromatic and planapochromatic objectives

The Leica MZ9$_5$ is supplied with a spacer ring for the achromatic objectives and the planachromatic objective 1× with a smaller diameter. After removing the intermediate ring, the planachromatic and planapochromatic objectives for the MZ12$_5$ can be used with a larger diameter.

An adapter (10 446 172) attachable to the Leica MS5, MZ6, MZ7$_5$ also enables using the MZ12$_5$ planachromatic and planapochromatic objectives with a larger diameter (see page 66).

When using the MZ12$_5$ planachromatic and planapochromatic objectives on the Leica MS5, MZ6, MZ7$_5$ and MZ9$_5$ the magnification is increased by the factor 1.25× (see objective combinations on page 66).

Ergo objective

With the achromatic Ergo objective 0.4×– 0.63× for the Leica MS5, MZ6, MZ7$_5$ and MZ9$_5$ it is possible to focus in the region of 90mm (63.5mm–153.5mm) ergonomically and precisely, without changing the viewing height. At the same time, magnification and working distance can be changed without any time-consuming changing of the objectives.

Objectives for the MZ12$_5$, MZ16 and MZ16 A

Planachromatic and planapochromatic objectives

The high-magnification MZ12$_5$, MZ16 and MZ16 A are combined with planapochromatic objectives 1×, 0.63×, 1.6×, 2× or planachromatic objectives 1×, 0.8× and 0.5× .

Achromatic objectives with a long focal distance

For special applications achromatic objectives with long working distances and focal lengths of f=100mm to 400mm are available.

Objective turret for the Leica MZ16 and MZ16 A

The objective turret carries a 1× and a 2× planapochromatic objective. In this way, a fast switchover can be made of the objects in the overall view and examined exactly in detail with a 230-fold magnification and a resolution of up to 840 line pairs/mm. During switchover the focused object position remains sharp (parfocal). The objective turret serves as a microscope carrier for the Leica MZ16 or MZ16 A at the same time.

Objective turret
Order no. 10 447 107

Eyepieces

Wide-field eyepieces for spectacle wearers, distortion-free

- Intrinsic magnifications 10×, 16×, 25× and 40×
- Possible for working with or without spectacles
- Adjustable eyecups
- Diopter setting adjustable from +5 to –5
- Photo graticules for determining the image sections and also measuring graticules can be implemented.

The distortion-free, wide-field eyepieces for spectacle wearers (10×/21B) have excellent imaging characteristics. Due to the distance of approx. 22mm between the eyepiece and the exit pupil (in this position the user sees the optimum circular image field) it is possible to work with and without spectacles. If you work without spectacles and want contact with theeyepieces or eyecups, you can pull out the eyecups 4mm to 20mm.

Soft eyecups

The wide-field eyepieces for spectacle wearers 10×/21B (Order no. 10 447 160) are supplied with soft eyecups that you can push onto the integrated eyecups of hard plastic. They protect your spectacles from becoming scratched and prevent eye-infections when several users are working with the same instrument.

Wide-field eyepiece 10×

The exit pupil of the low-priced wide-field eyepieces 10×/21 (Order no. 10 447 159) is approx.12mm and is suitable for observation without spectacles. The soft eyecups slanted at the sides, can be pushed on. It is possible to adjust diopter settings from +5 to –5, and insert graticules.

Wide-field eyepiece 10×/21, eyecup, Wide-field eyepieces for spectacle wearers 10×/21, 16×/14, 25×/9.5 and 40×/6

Focusing drive

Coarse/fine focusing

A choice of microscope carrier/focusing drive can be individually combined with each of the optics carriers Leica MS5, MZ6, MZ7.5, MZ9.5, MZ12.5, MZ16 and MZ16.

Focusing drives for incident-light and transmitted-light stands

– Focusing drives, coarse, with 300mm column, Order no. 10 445 615, and 500mm column, Order no. 10 446 100 (for figure, see page 18, below).
– Focusing drives, coarse/fine, with 300mm column, Order no. 10 447 106, and 500mm column, Order no.10 447 185 (for Figure, see page 19, below).

The focusing drive permits focusing along thefull length of the side-faced column. The focusing drive and side-faced column are supplied already assembled. The low-positioned, conveniently positioned, bilateraldrive knobs enable you to work comfortably with support for your arms. The ease of movement can be adjusted individually in accordance with the loading. The side-faced column with focusing drive is available in two versions:

– With coarse drive fast focusing is possible over greater distances.
– The coaxial coarse/fine drive also permits fine focusing.

To ensure accurate focusing at the highermagnifications, the MZ9.5, MZ12.5, MZ16 and MZ16 A stereomicroscopes should only be used with the coarse/fine drive.

Focusing drive, inclinable, for swinging-arm stand and OEM

The focusing drive, inclinable, is described on page 19 (Order no. 10 447 151).

Leica motor-focus system

– Motor-focus system for incident-light and transmitted-light stands with column 300mm (Order no. 10 446 176) and 500mm (Order no. 10 447 041)
– Motor-focus system with inclinable swinging-arm/table clamp stands, Order no. 10 446 259 (for figure see page 22, below)

The motor-focus system enables any microscope outfit to be moved weightlessly up and down with light finger movements, the feet, or by means of computer control. Five focus settings can be stored with the hand control, and an unlimited number with the computer, whereby the instrument can quickly reach these positions.

Motor-focus system on the transmitted-light stand HL

Microscope carrier

The requirements

To bring real rewards, a stereomicroscope must offer a logicalmodular concept. Only a steremicroscope that allows the flexibility required to provide tailor-made solutions to the diverse problems of today and of the future, that can be adapted to the most differing tasks, work stations and users will prove to be economic in the long term.

The Leica optics carriers MS5, MZ6, MZ7$_5$, MZ9$_5$, MZ12$_5$, MZ16 and MZ16 A fit onto the microscope carrier and is connected to the stand by the focusing drive.

– The objective turret (Order no. 10 447 107) for the Leica MZ16 and MZ16 A serves as the microscope carrier at the same time (see page 15).
– The focusing drive, inclinable (Order no. 10 447 151) serves as the microscope carrier at the same time (see page 19)

Microscope carrier for 3D observation
Order no. 10 445 617 for the Leica MS5, MZ6, MZ7$_5$, MZ9$_5$, MZ12$_5$
Order no. 10 447 114 for the Leica MZ16 and MZ16 A

The microscope carrier for stereoscopic observation can be secured in two different positions on the drive housing. The advantage: with its relatively short, side-faced column (300mm), the outfit is compact, and yet it can still be used with all the objectives from 2× to 0.5×.

Optics carrier with microscope carrier mounted in the lower position, focusing drive with side-faced column

Optics carrier with microscope carrier mounted in the upper position

The optics carrier, which fits into the microscope carrier, can be turned to the left and right if the user wants to view from the side. The optics carrier can also be quickly and easily removed from the yoke and fitted to another stand.
A connection socket for an earthing cable ∅4mm and a connection for a light guide are provided on the microscope carrier.

Microscope carrier AX
Microscope carrier, with selectable stereoscopic and axial image
– Order no. 10 445 518 for the Leica MS5, MZ6, MZ7$_5$, MZ9$_5$ with achromatic objectives and columns with focusing drive
– Order no. 10 447 062 for the Leica MZ12$_5$, MZ16 and MZ16 A and for configurations with planachromatic and planapochromatic objectives and also with the motor-focus

Users who intend to do a great deal of photography, take measurements or work with polarization should select the microscope carrier AX for stereoscopic/axial observation. The parallax-free imaging provided by the vertical beam path gives more exact results.

A built-in diaphragm prevents disturbing reflections during axial observation with coaxial incident illumination and quarter-wave plate.

Focusing drive, inclinable, for OEM
In this outfit, the microscope carrier and the focusing drive form a single entity. The ∅15.8mm (5/8") diameter peg enables the microscope to be fitted easily to machines, bonders and jigs. A tiltable joint aligns the optics carrier to the object. The ease of movement of the focusing drive is individually adjustable.
The same focusing drive, inclinable, can also be used on the swinging-arm stands (page 22).

Microscope carrier for stereoscopic / axial observation

Axial observation switched on

Focusing drive, inclinable, for OEM and swinging-arm stands
Order no. 10 447 151

Focusing drive, coarse/fine, for incident-light and transmitted-light stands with side-faced column. Optics carrier in the microscope carrier turned sideways

Incident-light stand

The requirements

It must be possible to arrange the stereomicroscope work station exactly in accordance with requirements. The stereomicroscope can only be fully integrated into the work process if the sturdy stand offers unrestricted access to the object and adequate space for tools and jigs.

Incident-light stand, antistatic
The incident-light stand consists of:
– Incident-light base (Order no. 10 446 340)
– Focusing drive, coarse (Order no. 10 445 615)
– Microscope carrier (Order no. 10 445 617)

The antistatic incident-light base is flat and occupies little space. This stand is suitable for the Leica MS5 and MZ6 and is fitted with a stage plate ∅ 120mm black/white. A black/white stage plate, ∅120mm, completes the outfit. The ergonomic shape of the baseplate, and its special surface provide pleasant support for the hands.

Sub-base for transmitted-light
Using the transmitted-light sub-base (Order no. 10 446 341) this small incident-light base can be converted at low cost for observing transparent objects. For illumination, a cold light source is necessary with light guide. Using an adjustable mirror, the light can be guided at any given angle from vertical to horizontal through the object plane. Depending on the inclination of the mirror, certain object structures are visible in inclined to dark-field-like transmitted light. Additional information can be gained when observing translucent objects such as for example, foraminifera and fish eggs.

Incident-light stand, antistatic

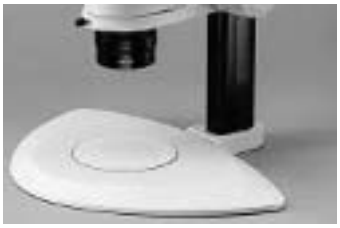
Incident-light stand with sub-base for transmitted light

Incident-light stand, large base
The solid, stable base-plate is suitable for all the models in the M line and for heavy outfits.

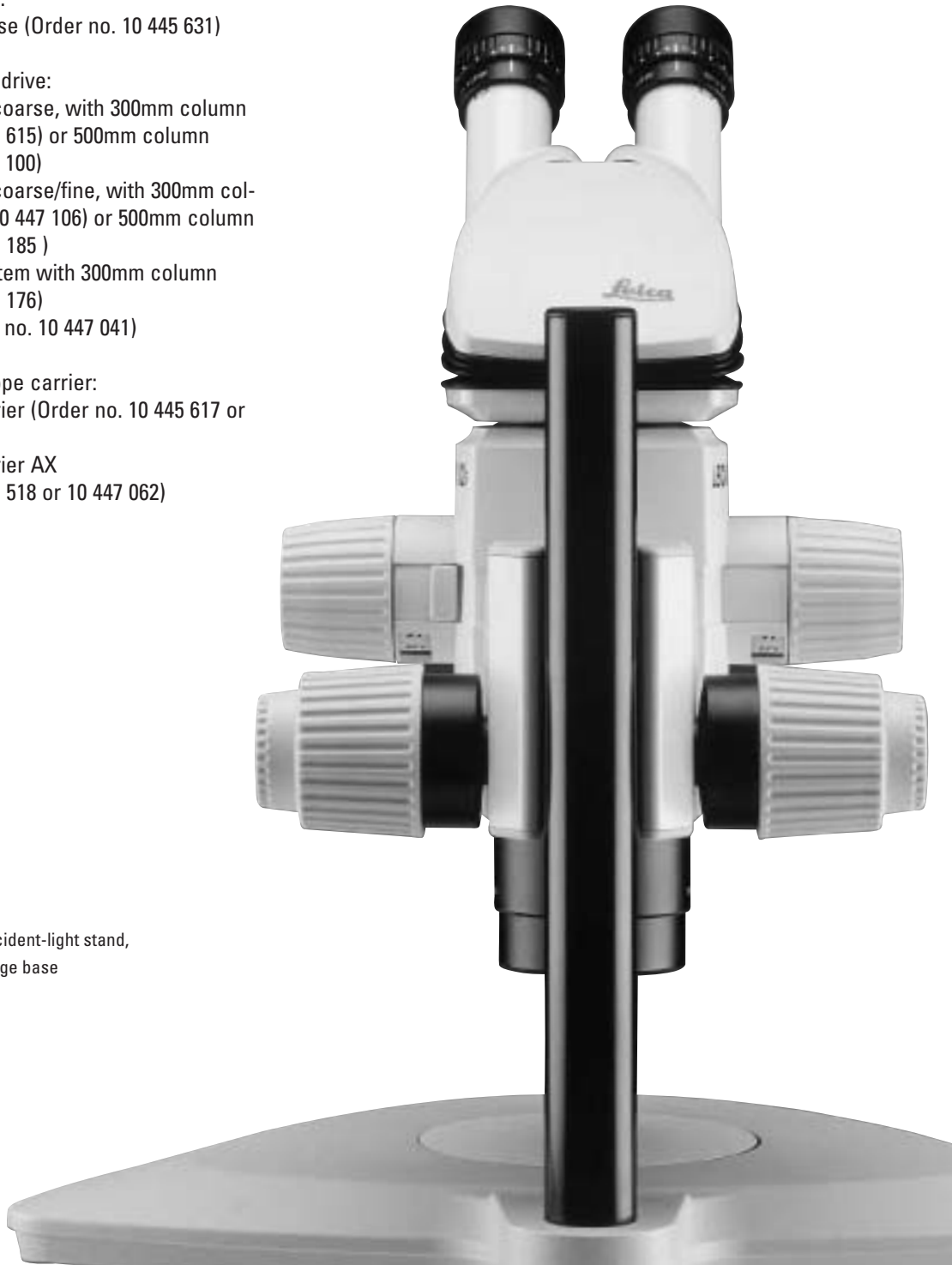
Combine your incident-light stand individually. Order the following:
– Incident-light base (Order no. 10 445 631)

Choice of focusing drive:
– Focusing drive, coarse, with 300mm column (Order no. 10 445 615) or 500mm column (Order no. 10 446 100)
– Focusing drive, coarse/fine, with 300mm column (Order no. 10 447 106) or 500mm column (Order no. 10 447 185)
– Motor-focus system with 300mm column (Order no. 10 446 176) or 500mm (Order no. 10 447 041)

Choice of microscope carrier:
– Microscope carrier (Order no. 10 445 617 or 10 447 114)
– Microscope carrier AX (Order no. 10 445 518 or 10 447 062)



Incident-light stand, large base



Swinging-arm stands

ESD swinging-arm stand with focusing drive, inclinable

Swinging-arm stand ESD
The ESD swinging-arm stand offers protection against electrostatic discharge during assembly and the quality control of electronic components such as printed circuit boards and integrated circuits. The stand consists of ESD discharging material and is fitted with two connection sockets for earthing cable ∅4mm. This stable stand is suitable for the similarly antistatic Leica MS5, MZ6, MZ7$_5$ and MZ9$_5$. Order the following:
– Swinging-arm stand ESD (Order no. 10 446 299), foot with column 400mm, clamping block and horizontal arm
– Focusing drive, inclinable, (Order no. 10 447 151), microscope carrier integrated

Swinging-arm and table-clamp stands
These stands offer ample room for working on large objects (rocks, metal castings, circuit boards) placed directly on the stage. The various adjustment facilities enable the work station to be arranged as required.
The optics carrier can be turned in either direction in the microscope carrier if a lateral working position is needed.
The table-clamp stand (column 550mm) can be attached to table-tops between 20mm and 50mm thick, to machines, or rigs.

Combine your own stand individually. Order the following:
– Base with column 550mm, ∅ 50mm (Order no. 10 445 152) or
– Table clamp with column 550mm, ∅ 50mm (Order no. 10 439 096)
– Horizontal arm (Order no. 10 439 097)

Large swinging-arm stand with motor-focus system

Choice of focusing drive
– Focusing drive with inclinable column (Order no. 10 446 101 or 10 445 913)
– Focusing drive, inclinable, (Order no. 10 447 151), microscope carrier integrated
– Motor-focus system with inclinable column (Order no. 10 446 259)

Choice of microscope carrier:
– Microscope carrier (Order no. 10 445 617 or 10 447 114)
– Microscope carrier AX (Order no. 10 445 518 or 10 447 062)

Universal stand

The universal stand is characterized by its exceptional stability. Vibrations which would create a disturbance during observation at high magnifications or in photography are eliminated with this stand. The baseplate readily accepts large objects and also magnetic stage carriers (see page 27).
The stable, universal stand is suitable for all the models in the M line and for heavy outfits. Order the following:
– Baseplate with column 450mm, ∅ 50mm (Order no. 10 445 153) or column 800mm, ∅ 50mm (Order no. 10 445 154)
– Drive housing with coarse/fine drive for columns ∅ 50mm (Order no. 10 445 629)

Choice of microscope carrier:
– Microscope carrier (Order no. 10 445 617 or 10 447 114)
– Microscope carrier AX (Order no. 10 445 518 or 10 447 062)

Further choice of assembly variations as on the swinging-arm stand with horizontal arm and focusing drive.

Flex-arm

This device provides horizontal and vertical movement of up to 90cm, enabling large objects such as circuit boards, works of art or large fossils to be scrutinized. The ease of these movements is individually adjustable. The flex-arm also offers ample scope for the work of dental technologists, as the microscope can swung to and from the object. The adjustable balancing enables the stereomicroscope to be moved effortlessly up and down over a range of 36.8cm. Since the instrument can be secured at any given height, it can be moved at will in the horizontal plane without affecting the sharpness of focus. It can be fitted to tables, walls and machines.
Order the following::
– Flex-Arm (Order no. 13 312 610)
– Focusing drive, inclinable (Order no. 10 447 151), microscope carrier integrated

Drive housing with coarse/fine drive for Columbus ∅ 50mm

The coarse/fine drive permits precise focusing at high magnifications and with heavy additional equipment. The same focusing drive is also used on the discussion tube.

Drive housing with coarse/fine drive, Order no. 10 445 629, on the universal stand

Universal stand with horizontal arm and focusing drive, inclinable

Flex-arm with focusing drive, inclinable

Transmitted-light stands

The requirements

For observing transparent objects under the stereomicroscope, transmitted-light stands are required. Even low-contrast objects must be reproduced crisply and in true color. A further requirement is the facility to observe double-refracting materials and thin sections in transmitted polarized light.

Transmitted-light stand, bright field
Order no. 10 445 387

Transmitted light
is used for inspecting transparent objects such as fibers and insect parts, and also specially prepared and stained objects such as thin cuts, smears and thin sections. The following illumination techniques are possible with Leica stereomicroscopes:

Transmitted light, bright field
is suitable for transparent objects with contrasting structures. The object is directly illuminated from below and is seen in its natural colors against a bright background.

Transmitted light, dark field
provides more information for weakly contrasting objects with structures which are either poorly defined or very fine. In this case, the light beams penetrate the object at a flat angle. Finely detailed structures and contours contrast brilliantly and brightly on a dark background.

Inclined transmitted light
which traverses the object obliquely will produce effects advantageous for observing semitransparent, opaque objects such as foraminifera and fish eggs.

Polarization, transmitted light
This makes double-refraction visible and measurable. Birefringent materials such as many organic and inorganic crystals (including minerals), bones, polymers, glass and liquid-crystal displays, can be studied.

The three stable transmitted light stands are suitable for all the models in the M line and for heavy outfits. Each stand is fitted with a glass stage plate ∅120mm. Combine your own transmitted-light outfit individually. Order the following:

Choice of base
– Transmitted-light base, bright field 20W (Order no. 10 445 387)
– Transmitted-light base, bright/dark field (Order no. 10 445 363)
– Transmitted-light base, HL (Order no. 10 445 367)

Choice of focusing drive:
– Focusing drive, coarse, with 300mm column (Order no. 10 445 615) or 500mm column (Order no. 10 446 100)
– Focusing drive, coarse/fine, with 300mm column (Order no. 10 447 106) or 500mm column (Order no. 10 447 185)
– Motor-focus system with 300mm column (Order no. 10 446 176) or 500mm (Order no. 10 447 041)

Choice of microscope carrier:
– Microscope carrier (Order no. 10 445 617 or 10 447 114)
– Microscope carrier AX (Order no. 10 445 518 or 10 447 062)

Transmitted-light stand,
bright / dark field
Order no. 10 445 363
with rotatable polarization stage

Transmitted-light stand, bright / dark field
- Choice of bright or dark field, selectable
- Uniformly illuminated field of view
- Illumination using fibre-optic light guide
- Stand remains cool
- Large working surface; glass stage plate ∅120mm
- Comfortable handrest
- High stability

This is the stand of choice for observations and photomicrography in bright and dark field.The switchover between the two illuminating techniques only takes a moment with the lever. Unlike the asymmetrical dark-field with inclined transmitted light, a fibre-optic ring in this stand ensures a uniform illumination of the field of view from all sides. The fibre-optic light guide with an external light source serves for illuminating. The stand remains cool.

Transmitted-light stand, bright field
- Direction of illumination can be varied: oblique illumination
- Option of asymmetrical dark-field illumination
- Uniformly illuminated field of view
- Infinitely variable brightness adjustment
- 6V/20W halogen illumination
- Choice of holder for filters ∅50mm
- Socket for an incident lamp
- Built-in transformer
- Large working area; glass stage plate ∅120mm
- Comfortable handrest
- High stability

The transmitted-light stand for bright field includes a complete illumination system, comprising a 6V/20W halogen lamp and a 0–7V regulating transformer. A tiltable mirror enables the light to fall on the specimen plane at any angle from vertical to grazing incidence.
The mirror can be adjusted to produce a continuous gradation from transmitted light bright field to asymmetrical dark field.

Transmitted-light stand HL
Order no. 10 445 367

Transmitted-light stand HL

- For highest demands in observation and documentation
- High stability for video and photography
- Ratchet for exact bright field with maximum brightness
- Extremely bright and uniform illumination
- Additional condenser for increasing the resolution
- Adjustable mirror for vertical and oblique illumination
- Mirror has clear and mat sides for direct or diffuse illumination
- Cold-light source and fibre-optic light guide
- Glass stage plate, ∅120mm

In the HL high-performance stand, the angle at which the light falls on the object can be varied in accordance with the characteristics of the object and the type of information required. The base has a deviating mirror which can be rotated and also displaced towards the column, enabling particular object structures to be emphasized. The illumination for the transmitted-light base HL is produced by a fibre-optic light guide via an external cold-light source. Thanks to this technique, the object field stays cool which proves to be a great advantage when observing heat-sensitive, biological specimens.

Sub-base for transmitted light, bright field

This is a competitively-priced solution: the incident-light stand with a small base can be converted into a transmitted-light stand by placing it on the sub-base for transmitted light (page 20).

Stages

Gliding stage
Order no. 10 446 301

Cup stage
Order no. 10 446 303

Universal carrier
Order no. 10 446 304

The following stages fit in the stage opening ∅120mm of the incident-light and transmitted-light stands.

Gliding stage ∅120 mm
Specimens can be accurately displaced and turned. This gliding stage is used with the stage plate, black/white, a clear glass stage plate or a cup stage.

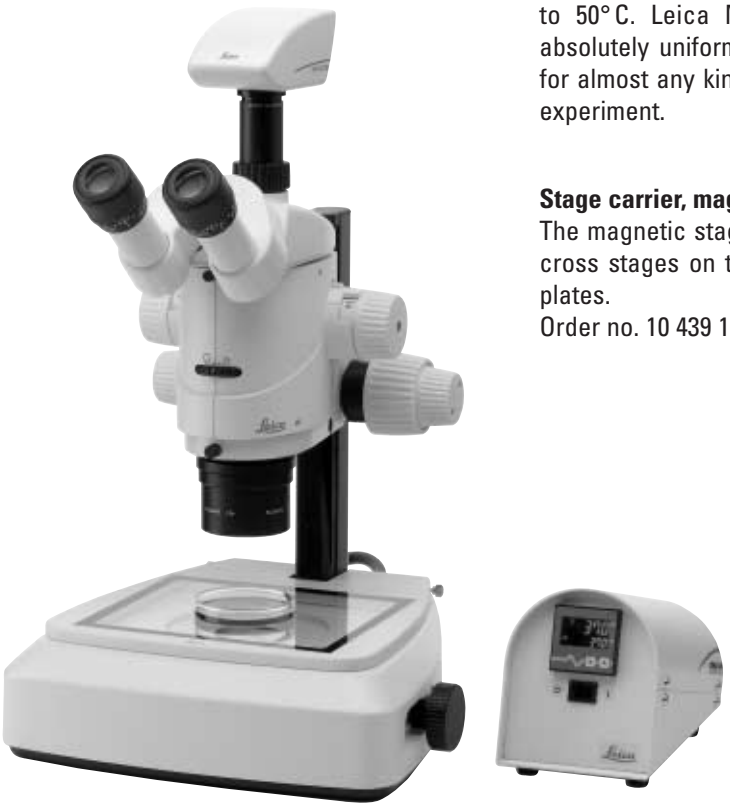
Cup stage ∅120 mm
Petri dishes, and spatial objects such as plants and insects, can be attached to the surface and studied from all sides.

Universal carrier ∅120 mm
The universal carrier enables specific working devices to be assembled on the stands.

Leica MATS thermo-stages
- Absolutely uniform heat distribution across the entire stage surface
- Excellent temperature stability: in 5 hours only < 0.5° C at 37° C
- Fastest heating-up time: 40° C in approx. 3.5 minutes
- Exact automatic control and regulation of the stage temperature
- Temperature up to 50° C adjustable in 0.1° C increments
- Precise digital display
- Largest selection of varying types of stage for the Leica stereomicroscopes (transmitted-light) and microscopes (upright and reversed)

The Leica MATS Thermocontrol System enables the observation of preparations that are susceptible to temperature and living cells in biology, medicine and pharmaceutics under exact temperature conditions. The heatable specimen stage made of optical glass can be heated up to 50° C. Leica MATS ensures a protective, absolutely uniform temperature and is suitable for almost any kind of specimen and laboratory experiment.

Stage carrier, magnetic
The magnetic stage carrier serves for installing cross stages on the universal stand and metal plates.
Order no. 10 439 170



Leica MATS
Thermocontrol System

Illuminators

The requirements

The correct illumination is the key to informative investigation andinspection. The better the object is illuminated, the more details become visible, and thus the more reliable the inspection and the better the photographic documentation.

Inclined incident light, dark field
Spatial objects are illuminated with oblique incident light. The rays of light fall on the object at the angle, freely chosen from steep to shallow. To soften dark shadows, the object should be illuminated from two sides or by a ring lamp.

Coaxial incident light, bright field
is used to reveal the structures of flat, highly-reflecting objects such as wafers, integrated circuits, liquid-crystal displays and metal sections by using interference colors. Using this method of illumination, the light rays are reflected directly into the two observation beam paths of the stereomicroscope. The light beams shine through the objective onto the reflecting surface of the object and are reflected back into the objective at the same angle.

Vertical incident light
The almost vertical beam of light penetrates recesses and enables boreholes and cavities to be observed. Disturbing shadows which may be thrown by tools are avoided during work.

Fluorescence
When irradiated with short-wave light, fluorescent substances illuminate. Stereo fluorescence is a nondestructive, observational technique for research (molecular cell biology, biochemistry, molecularpharmacology, biology) and for the metalworking, electronics and paper industries, as well as in criminology.

Mains lamp 25W
Competitively-priced incident lamp with direct mains connection, reflector bulb 25W and the same lamp holders and adaptation possibilities as for the 10W incident lamp.

6V/20W incident illuminator
- High-quality incident lamp for observation and photography
- Centrable 6V/20W halogen bulb
- Variable diameter for light spot
- Color temperature 3200K
- Built-in, heat-absorbing filter
- Diffusing filter, filterholder
- Freely-positionable lampholder
- Diverse possibilities for adaptation
- Infinitely variable regulation of the light intensity

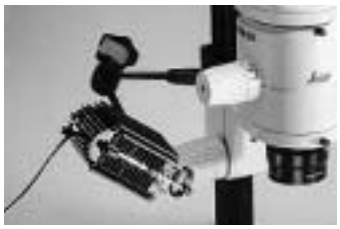
The 6V/20W incident lamp is the best choice where ideal light quality, a high light output, completely uniform illumination and a color temperature of 3200K are required. The size of the light spot and the light concentration on the object level can be infinitely optimized.
In addition to the diffusing filter supplied, three additional filter holders accepting any filters, ∅32mm, can be attached to the lamp housing. The lampholder is very flexible and can be adjusted to any position. It can be fitted to the universal stand on the side-faced column (using adapter), the cast base and the drive housing.

6V/10W incident illuminator
- Competitively-priced incident lamp
- 6V/10W halogen bulb
- Focusable light spot
- Color temperature 2800K
- Diffusing filter, filterholder
- Diverse possibilities for adaptation
- Regulating or step transformer

The 6V/10W incident lamp is suitable for observing 3D objects. The light concentration of the bright, homogenous light spot can be matched to the diameter of the field of view.
If necessary, filter holders can be mounted for diverse filters, ∅50mm.
Various adapters enable it to be connected to the side-faced column, the objective mount, or the cast foot.

Regulating transformer
Two incident lamps with halogen bulb can be connected to the 0-7V/40VA (115V/230V regulating transformer. Safety-tested: LGA, GS, EN 60950, CCA

Step transformer
A low-priced transformer for powering an incident lamp with halogen bulb. Brightness adjustable in three steps, 4/5/6V.



6V/20W incident illuminator
Order no. 10 445 155

6V/20W incident illuminator on cast foot
Order no. 10 399 202

6 V/10 W incident illuminator
Order no. 10 400 028
with arm (10 399 211)

25W mains lamp
Order no. 10 407 725

Regulating transformer
for incident illumination
Order no. 10 445 312

4/5/6V step transformer
Order no. 10 445 314

Cold-light illuminations

Leica LED1000

Leica L2 cold-light source
Order no. 10 446 385

Clamp for fixing the fibre-optic light guide to the microscope carrier
Order no. 10 445 737

Fibre-optic light guides
Fibre-optic illuminators are commercially available. Gooseneck guides can be clamped to the microscope carrier.

Leica LED illumination
The Leica LED1000 (Laser Emitting Diode) illumination is available with ring lamp and/or spot and suitable for routine tasks with the Leica MS5, MZ6, MZ7$_5$, MZ9$_5$ stereomicroscopes. LEDs, which do not develop any heat, are used as illuminators. The color temperature measures 5000 K (daylight).

The Leica CLS cold-light sources
The Leica CLS cold-light sources provide the strongest light intensity within the smallest space and flicker-free white light with a minimum influence of heat on the specimens. The cold-light sources are lightweight and compact, user-friendly and maintenance-free. The fan is quiet and does not causing any disturbing operating noise.
All the models in the CLS line have a mechanical diaphragm that enables a uniform illumination and a constant color temperature at all illumination intensities without altering the size of the illuminated field. The comprehensive program of accessories enables unlimited use. The CLS series is produced of antistatic material.
When using the ring lamp (∅ 76mm) on the planachromatic objective 0.8× (∅ 80mm), a special adapter (10 447 078) is required.

Leica L2 - compact, modular cold-light source

- Highest total light flux of 63lm at the fibre-optic light guide source
- No 100Hz flicker, no scattered light, constant color temperature 3200°K
- Smallest (125mm×110mm×150mm) and lightest (0.5kg) cold-light source
- The only cold light source that can be coupled directly to thestereomicroscope. Thus the complete outfit requires minimal space, and the illumination remains constant when the stereomicroscope is moved
- The only cold-light source with volt-sensitive supply unit, that guarantees a stable light output and automatic adjustment to the respective mains voltage of 100V–240V
- Antistatic housing
- Long lamp service life of 250 hours, simple lamp change without using tool
- Noiseless, vibration-free operation
- Diverse fibre-optic light guides with protective coating of self-extinguishing Megolon®
- Accessories for coaxial, vertical, transmitted-light illumination

The Leica L2 cold-light source is suitable for all applications in industry and life science. Apart from one and two-path fibre-optic light guides the respective accessories are also available for coaxial, vertical and transmitted-light illumination techniques. The Leica L2 offers a higher performance at a lower price than other cold-light sources in the 20W class.

Coaxial incident illuminator

With this illumination, flat, reflecting object surfaces become visible. Magnifying optics 1.5×. Order the intermediate ring (10 446 300) for the MZ7$_5$, MZ9$_5$ with planachromatic objective 1×; the largest fields of view are then also fully illuminated.

Please order a fibre-optic light guide (active diameter f=10mm, end diameter f=13mm) and a light source.

Vertical illumination

The vertical illuminator is used with interchangeable objectives of focal lengths 100mm, 150mm, 175mm or 200mm. The f=200mm objective fully illuminates even the largest field of view (66mm). Incidence angle approx. 5°. Please order the appropriate intermediate rings to match the instrument (see page 67).

Fluorescence

Leica stereo fluorescence module

- For nondestructive, three-dimensional observation of living organisms
- Intensive incident-light fluorescence
- Differentiation of the finest structures
- Choice of special filter sets, e.g. for GFP
- UV light protection

The powerful fluorescence module enables whole, fluorescing specimens to be viewed three-dimensionally and unprepared, manipulated, sorted and recorded. The intense light produced by the mercury, super-pressure lamp, together with an appropriate filter set, enables even the finest structures, such as individual nerve cells, hairs, cracks, blemishes, inclusions or dirt particles, to be differentiated.

Only from Leica

Leica MZ FLIII fluorescence stereomicroscope. Information in brochure M1-160-0.

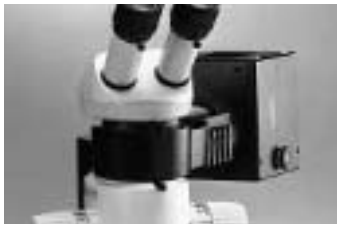
Leica L5 FL fluorescence system

The Leica L5 FL is a low-priced as well as a good quality fluorescence system for blue or green fluorescence. The Leica L5 FL simplifies the daily routine work in the laboratory and is suitable for training courses, forensic and industrial stereo-fluorescence applications.

The outfit comprises a comfortable high-performance cold-light source, fibre-optic light guides, illumination optics and filter holder. A filter wheel with 5 filter holders in the cold-light source for excitation, color and daylight filters and filter changer for blocking filters in the observation beam path of the stereomicroscope permit a very fast switchover between fluorescence and bright-field observation. The bright 250W cold light reflector lamp guarantees intensive, excellent fluorescence images. The ideal color temperature is 3350° K and can be monitored on the LC display. For details see brochure M1-205-1.

Coaxial incident illuminator
Order no. 10 446 180

Vertical illuminator
Order no. 10 445 198



Stereo-fluorescence module

Leica L5 FL fluorescence system

Photomicrographic systems and video

The requirements

Whoever uses a stereomicroscope for inspection and investigation purposes generally also wants to document the observed specimens, e.g. for evidencing damage analysis, for scientific publications, for analyzing work procedures, or for control purposes, etc.

Leica MPS30 photoautomat
This budget-priced, easy-to-use photomicrographic system for routine photography features a digital display, integrated metering, automatic exposure, exposure with an individually selected fixed time, and diverse additional applications.

Leica MPS60 photoautomat
Thanks to a light measurement using the 1%-spot, and 100% light on the highly sensitive photodiode and film level, perfect photographs with the shortest exposure times can be taken with the Leica MPS60 photoautomats even during problematic lighting conditions, e.g. fluorescence.

SLR camera system
The Ricoh XR-X3000D single-lens reflex camera with databack is extremely suitable for uncomplicated routine photography.
The Leica 2.5× projection eyepiece enables the Ricoh camera or other SLR -small-picture camera housing to be fitted to the Leica stereomicroscope.

Leica MPS30 photoautomat and databack, video/phototube HD

Leica MPS60 photoautomat and databack, trinocular tube

Video/phototube HD, left video/photo objective H, Leica MPS60 camera body. Video objective 0.32× (right) and video module with C-mount

Leica IC A integrated video module
Leica IC A is a competitively-priced video module of the high-end class. The Leica IC A opens up new perspectives for industrial quality control and image analysis, and also for presentations to large audiences.

Accessories for diverse video modules
Diverse video objectives and adapters offer numerous possibilities for using commercial CCD cameras on Leica Stereomicroscopes with video/phototubes.

Leica DC digital imaging systems for professional microscopy
The Leica DC camera line excels with its state of the art digital technology, high performance and variety and is optimally suited for all microscopic techniques, for contrasting and weak incident-light and transmitted-light microscopy as well as for low-light fluorescence techniques. The digital imaging systems are specially designed for professional photomicrographic applications in medicine, life sciences, research and industry. Please ask your Leica dealer about the possibilities for professional imaging and processing.

Intelligent system solutions
In combination with the image management software, Leica Image Manager, the user has a comprehensive professional system for continuous use in quality control and in the laboratory, as well as for demanding research and analysis tasks.

Trinocular video/phototube with video/photo objective 1×, photo projection 2.5×, T2 camera adapter, SLR camera Ricoh XR-X3000D and remote release key

Leica IC A
Integrated video module

Leica DC - Digital Imaging System

Video/phototubes

Video/phototube A
Order no. 10 445 925

Video/phototube HU
Order no. 10 445 174

Trinocular video/phototube
Order no. 10 445 924 50
Order no. 10 446 229 100

For adapting a camera, video/photo interfaces and diverse attachment components are necessary. Exception: the integrated Leica IC A video module that is inserted without any optical accessories directly in the beam path.
The described video/phototubes serve for assembling a choice of digital, MPS, SLR, video or film-camera and for retrofitting respective models that are no longer included in the program.

Trinocular or monocular attachment
With the trinocular video/phototubes and the video/phototubes HD, HV and HU, the user can observe the specimen stereoscopically in the binocular tube. In the video/photo beam path the light is directed, depending on the part-system, via the video/photo interface to the camera.
With the monocular attachment using phototube A, the object and sharpness can only be observed on the monitor or in the viewfinder/focusing telescope on the camera, depending on the documentation outfit.

Trinocular video/phototubes
The trinocular video/phototube is an observation and video/phototube all in one. Thanks to the low viewing height and deep position of the eyepiece this tube offers comfortable viewing for high outfits with accessories such as transmitted-light stand, coaxial illumination or fluorescence module. The center of gravity of the camera is above the right beam path, thus ensuring high stability.
The trinocular video/phototube is available in two versions with differing part-systems.

– Trinocular video/phototube 50% with fixed part-system - in the video/photo beam path 50% of the light is directed to the camera, whereby the object is observed stereoscopically with 50% light and can be treated. While taking the photo, a selectable diaphragm prevents foreign light from shining through the eyepieces.

– Trinocular video/phototube 100% for poor light conditions: switchover is possible between observation and video/photo beam path. When the observation beam path is switched on, 100% light is directed to each of the eyepieces. In the video/photo beam path 100% light is directed into both the camera and the left eyepiece.

Video/phototube HD
The two side interfaces on the video/phototube HD can be used simultaneously for photography and video. A switchover is possible between the observation and the video/photo beam path. When the video/photo beam path is switched on, 50% light is available in the right interface for the modern, highly sensitive video modules. 100% light in the left interface also allows photography or video during critical light conditions.
While taking the picture, the object can be monitored with the right eye at 50%. Depending on the outfit, the user can select the most ergonomic of 4 binocular tubes as well as an ErgoWedge® and mount the double-iris diaphragm.

Video/phototube HU and HV
A switchover is possible between the observation and the video/photo beam path. Both video/phototubes are constructed in the same way but have differing part-systems:
– Video/phototube HU: When the video/photo beam path is switched on, 100% light in the camera enables photos during poor light conditions while the object can still be monitored with one eye.
– Video/phototube HV: When the video/photo beam path is switched on, 50% light is available in the camera. This enables the object to be observed stereoscopically with 50% light in both eyepieces.

Both video/phototubes can be positioned over the right or left beam path and combined with a choice of one of the 4 binocular tubes and an ErgoWedge®. The double-iris diaphragm is built in to increase the depth of field.

Video/phototube A
The monocular phototube A is suitable for users who observe the object on the monitor or seldom take photographs, whereby they observe the object in the viewfinder or focusing telescope of the camera. In the photo interface there is 100% light available.

Filter-slide housing
The filter-slide housing is installed in the beam path of the stereomicroscope and accommodates 2 color compensation filters that have to be changed quickly.

Video/phototube HD
Order no. 10 446 197

Video/phototube HD with
video/photo objective H
and double-iris diaphragm
Order no. 10 445 931

Video/phototube HD with
video/photo objective H and
filter-slide housing
Order no. 10 447 158

Video/phototubes

Feature	Trinocular video/phototube 50%	Trinocular Video/photo tube 100%	Video/phototube HD-50	Video/phototube HU	Video/phototube HV	Video/phototube A
Use	universal for photography, video, Digital Imaging	universal for photography, video, Digital Imaging	universal for photography, video, Digital Imaging	universal for photography, video, Digital Imaging	universal for photography, video, Digital Imaging	universal for photography, video, Digital Imaging
Special features	lowers the height with high outfits	directs 100% light into the camera, for weakly illuminated objects	simultaneous photography and video transmission	directs 100% light into the camera, for weakly illuminated objects	stereoscopic object control while taking the photograph	competitively-priced, for non-stereoscopic observation on the monitor
Setup	trinocular	trinocular	trinocular	trinocular	trinocular	monocular
Observation	50% stereoscopic observation	100% stereoscopic observation can be switched over to video/photo	50% stereoscopic observation / 50% in the right and left video/photo beam path, selectable to video/photo	100% stereoscopic observation can be switched over to video/photo	100% stereoscopic observation, can be switched over to video/photo	no stereoscopic observation
Light distribution for photography/video	– 50% visual stereoscopic – 50% in the video/ photo beam path	– 100% visual in one eyepiece – 100% in the video/ photo beam path	– 50% visual in the right eyepiece – 50% in the right video beam path – 100% in the left video/photo beam path	– 50% visual in one eyepiece – 100% in the video/ photo beam path	– 50% visual stereoscopic – 50% in the video/ photo beam path	– 100% in the video/ photo beam path
Double-iris diaphragm	facultative	facultative	facultative	built-in	built-in	facultative
Photo eyepieces	8×, 10×, 16×	8×, 10×, 16×	8×, 10×, 16×	8×, 10×, 16×	8×, 10×, 16×	8×, 10×, 16×
Usable Photomicrographic systems	– Leica MPS30 – Leica MPS60	– Leica MPS30 – Leica MPS60	– Leica MPS30 – Leica MPS60	– Leica MPS30 – Leica MPS60	– Leica MPS30 – Leica MPS60	– Leica MPS60
Usable SLR cameras	– Ricoh XR-X3000D – wide variety of modern camera housings	– Ricoh XR-X3000D – wide variety of modern camera housings	– Ricoh XR-X3000D – wide variety of modern camera housings	– Ricoh XR-X3000D – wide variety of modern camera housings	– Ricoh XR-X3000D – wide variety of modern camera housings	– Ricoh XR-X3000D – wide variety of modern camera housings
Usable video modules	– 3-chip video modules, 1/2" and 2/3" with B-mount – 1/3", 1/2", 2/3", 3/4" and 1" video modules with C-mount	– 3-chip video modules, 1/2" and 2/3" with B-mount – 1/3", 1/2", 2/3", 3/4" and 1" video modules with C-mount	– 3-chip video modules, 1/2" and 2/3" with B-mount; – 1/3", 1/2", 2/3", 3/4" and 1" video modules with C-mount	– 3-chip video modules, 1/2" and 2/3" with B-mount – 1/3", 1/2", 2/3", 3/4" and 1" video modules with C-mount	– 3-chip video modules, 1/2" and 2/3" with B-mount – 1/3", 1/2", 2/3", 3/4" and 1" video modules with C-mount	– 3-chip video modules, 1/2" and 2/3" with B-mount – 1/3", 1/2", 2/3", 3/4" and 1" video modules with C-mount
Digital Imaging systems	– Leica DC camera line	– Leica DC camera line	– Leica DC camera line	– Leica DC camera line	– Leica DC camera line	– Leica DC camera line

Photomicrography

Attachment components for Leica MPS30 and MPS60

Photo eyepieces 8×, 10×, 16× and focusing and framing graticules
Order no. 10 446 120, 10 445 304, 10 445 305

For assembling the MPS camera body on the video/phototubes an eyepiece tube and a photo eyepiece are required.

Eyepiece tube
The eyepiece tube (external diameter 37mm) accommodates a choice of photo eyepiece and serves at the same time as a carrier for the camera body on the video/phototube.

Photo eyepieces
The photo eyepieces project the image into the camera and are obtainable with magnification factors of 8×, 10× and 16×. Measuring graticules can be inserted in the photo eyepieces and also photographed. Consult your Leica dealer about this possibility.

Focusing and framing graticule
With the trinocular attachment the user can observe the sharpness and image section comfortably in the binocular tube with the aid of a focusing and framing graticule. Frame lines for all film formats are shown on the graticule. The graticules differing according to the magnification of the specific photo eyepiece used are supplied in a metal mount and can easily be inserted in one of the observations eyepieces.

Trinocular video/phototube
(Order no. 10 445 924)
with video/photo objective 1×,
(Order no. 10 445 930)
Eye piece tube (Order no. 10 445 932),
photo eyepiece

Video/phototube HU,
eyepiece tube,
photo eyepiece

Video/phototube HD,
left video/photo objective H,
and Leica MPS30 camera body with
interchangeable cassette

Leica photoautomats

Leica MPS30 photoautomat

This photomicrographic system consists of
– the Leica MPS30 control device
– the Leica MPS30 camera body for integrated metering
– a motor adapter and an interchangeable cassette with or without databack
or
– a camera attachment for large format 0.8×

Detailed information in brochure M1-330-0.

Functions
The highly-sensitive photodiode in the camera body measures the entire quantity of light emitted from the object and directed through the phototube into the camera body using integrated metering. With this measuring technique most of the objects uniformly filling the photo format can be recorded without any problem.
The control device
– records the photodiode signals
– processes the variables camera factor, film sensitivity, reciprocity-failure factor and individual exposure factor
– immediately calculates the current exposure time and displays it
– controls the result, activates the error detection in certain cases and blocks the release button as well as the film transport
– controls the camera lock, the display for the exposure duration, the exposure of the band for the interchangeable cassette with databack and the automatic film transport.

Type of exposure
Choice of
– automatic exposure with the calculated, displayed exposure time
– the fixed-time exposure with a stored exposure time.

Interchangeable cassettes
The interchangeable cassette system consists of
– a motor adapter with camera objective 0.32× and
– an interchangeable cassette with or without databack.

Features
- DX-coding
- automatic film loading
- automatic film transport after each photo (except for multiple exposure using MPS60)
- automatic rewinding
- press-button for rewinding at any given place on the film
- automatic reset of the picture counter to "00"
- LCD display of picture number
- film window

Databack and keyboard
The interchangeable cassette with databack illuminates a 32-space line with the following texts.

The camera attachment 0.8× with Polaroid cassette
Accommodates Polaroid pack films of size $3^1/_4 \times 4^1/_4$in. This camera attachment includes an objective adapter and a camera objective 0.8×.

Leica MPS30 control device
Order no. 10 446 168

Leica MPS60 control device
Order no. 10 446 168

Leica MPS60 photoautomat

This photomicrographic system consists of
– the Leica MPS60 control device
– the Leica MPS60 camera body for integrated and spot metering, facultative with focusing telescope
– a motor adapter and an interchangeable cassette with or without databack or
– a camera attachment for large format 0.8×.

Detailed information in brochure M1-360-0.

Functions
The highly-sensitive photodiode in the camera body measures the entire quantity of light emitted from the object and directed through the phototube into the camera body using a choice of spot or integrated metering. The control device
– records the photodiode signals
– processes the variables camera factor, film sensitivity, reciprocity failure factor, individual exposure factor, bright/dark field or fluorescence
– immediately calculates the current exposure time and displays it
– controls the result, activates the warning lamps and the error detection in certain cases, blocks the release button and the film transport
– controls the camera lock, the display for the exposure duration, the exposure of the band for the interchangeable cassette with databack and the automatic film transport.

Integrated or spot metering
A switchover on the camera body is possible between integrated and spot metering.
– Integrated metering is suitable for objects that fill the picture format with uniform density.
– With spot metering, individual features and objects can be specially measured in the center of the picture field. The 1%-spot permits very precise measurements of the finest structures.

Memory for parameters
For each of the camera factors 0.32×, 0.8×, 1× and 1.25× there are two memories for frequently used parameter combinations (film sensitivity/reciprocity-failure correction/bright or dark field or fluorescence/individual exposure factor).

Light measurement in the camera body
The linear working range of the photodiode is 0.01 sec. to 4200 sec. at 100 ASA (small picture film) and permits exact measurements even during poor lighting conditions.
For details on cassettes and databack see page 38

Interchangeable cassette without databack
Order no. 10 445 338

Interchangeable cassette with databack
Order no. 10 445 143

Keyboard to databack
Order no. 10 445 390

Camera attachment 0.8×
with Polaroid cassette

SLR camera system

For large series of pictures with the same picture parameters, the Ricoh XR-X3000D Date single-lens reflex camera with databack offers an excellent alternative to the Leica photomicrographic systems. This camera excellently satisfies the demands made on photomicrography and is most suitable for uncomplicated routine pictures. The Leica 2.5× projection eyepiece enables the Ricoh camera or other single-lens reflex camera for small pictures-to be fitted to Leica stereomicroscopes with video/phototube.

Features of the Ricoh XR-X3000D Date

- Integrated/spot metering
- Automatic exposure up to 32 seconds
- Individual exposure correction
- Auto-bracketing
- Exposure-time memory AEL
- Manual exposure setting up to 32 seconds
- Long-term exposure (bulb)
- Multiple exposure
- Picture series function
- DX-recognition or manual film sensitivity setting
- Automatic film transport
- Databack
- Battery or mains operation

Single-lens reflex camera attachment with photo eyepiece

This attachment with the differing photo eyepieces 8×, 10× or 16× permits varying the section and magnifications. The outfit for attaching to any single-lens reflex camera consists of:

– Eyepiece tubes (Order no. 10 445 932)
– Photo eyepiece 8×, 10× or 16× (Order no. 10 446 120, 10 445 304, 10 445 305)
– Adapter 40mm (Order no. 10 404 207)
– Connecting sleeve (Order no. 10 162 226)
– Camera objective 0.32× (Order no. 10 445 541)
– Matching camera adapter for diverse single-lens reflex cameras

Ricoh XR-X3000D with
wire triggering
Order no. 10 446 247

Trinocular video/phototube,
video/photo objective 1× and
Leica single-lens reflex camera

Accessories for video modules

C-mount adapter for CCD cameras: 0.5× for 1/2", 0.63× for 2/3", 1× for 1"

Video objectives with C-mount for CCD cameras: 0.32× for 1/3" and 0.5× for 1/2"

Diverse video objectives and adapters offer numerous possibilities for using CCD cameras on Leica stereomicroscopes with video/phototubes.

C-mount adapter
The C-mount adapter 1× for 1" CCD cameras (Order no. 11 541 006), 0.63× for 2/3" CCD cameras (Order no. 11 541 007) and 0.5× for 1/2" CCD cameras (Order no. 11 541 016) are inserted directly into the interfaces of the video/phototubes without eyepiece tubes and without photo eyepiece (single-step imaging).

Video objectives
The video objectives 0.32× for 1/3" CCD cameras (Order no. 10 445 928), 0.5× for 1/2" CCD cameras (Order no. 10 445 929) and 0.63× for 2/3" CCD cameras (Order no. 10 446 261), with C-mount can be screwed directly onto the video/phototubes HD and A as well as onto the trinocular video/phototube and produce a low, compact outfit.

Single-step assembly
All the video objectives and adapters are inserted directly into the video/phototubes without eyepiece tube and without photo eyepiece. Thanks to differing magnifications, the image section and image scale can be aligned individually on the monitor.

Vario TV adapter
As an alternative to the TV adapters with a fixed magnification a Vario TV adapter with a zoom range of 0.55 to 1.1× (Order no. 11 541 038) is available. Depending on the TV camera used, a C-mount adapter (preferably for 1/2" and 3/4" TV cameras) or B-mount adapter for 3-chip cameras, 1/2" and 2/3", are additionally required.

Video/phototube HU with C-mount adapter 0.5× for 1/2" CCD cameras

Trinocular video/phototube with video objective 0.5× for 1/2" CCD cameras with C-mount

Video/phototube A with video objective 0.32× for 1/3" CCD cameras with C-mount

Leica IC A integrated video module

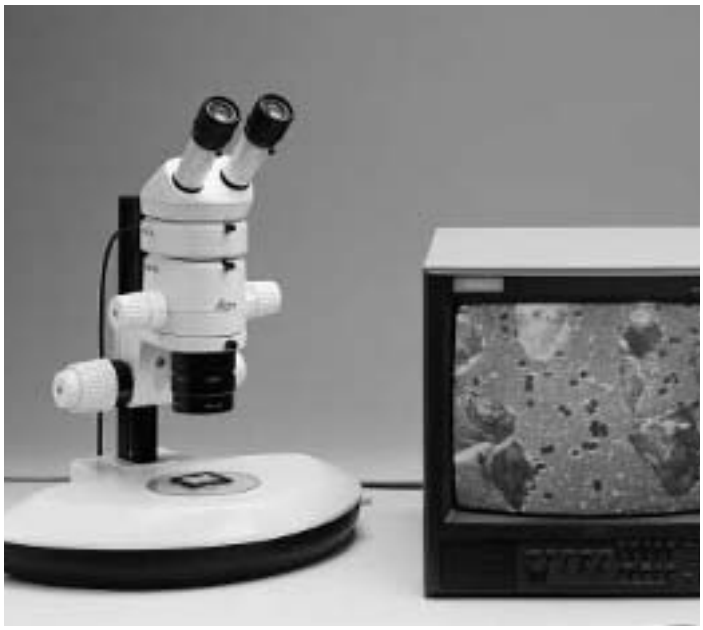
The Leica IC A (Integrated Camera-Analog) is an integrated analog camera with automatic digital control of the high-end class. The video module is attached directly underneath the binocular tube without any additional video/phototube and is protected against dust.
Detailed information in brochure M1-393-1.

Functions
The Leica IC A video module permits simple, low-cost, fast, environment-friendly and high-quality picture production on videoprinters and recording of moving pictures on the videorecorder. For quality control and the analysis of preparations, including those for presentations to large audiences, the Leica IC A opens up new perspectives. Directly coupled to a PC, photos can be processed immediately, stored or subsequently used for direct transmission.

Automatic digital control
Thanks to the automatic digital control of the camera, the reproduction quality, exactness and reliability are also ensured after many years of use. The concentric coupling into the beam path of the stereomicroscope ensures the best image quality right up to the edge of the monitor and a reflection-free image in the binocular tube. The image section and sharpness on the monitor and in the eyepieces are identical. The center of the image also remains constant in the middle when the magnification is changed.

Basic settings
The video module is optimally adjusted for microscopy purposes as regards sharpness, brightness and color. The user can therefore work with the basic settings defined by Leica or e.g. control the brightness and contrast of the entire image (integrated) or of a certain section (spot) and save/call up the changed settings.

Operating buttons



Leica IC A video system with
Leica MZ6 stereomicroscope

Discussion (second-observer tube)

The requirements

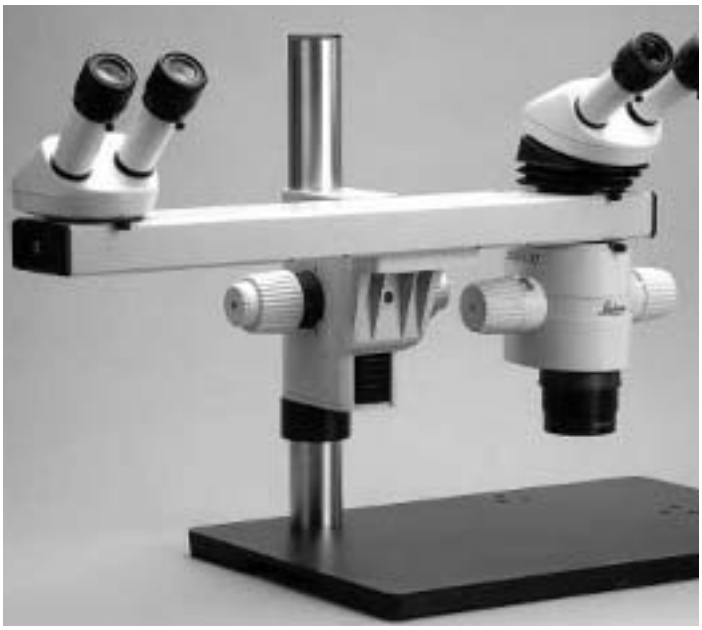
It must also be possible to use a stereomicroscope for educational and further training purposes. Trainees who see the same upright, laterally-correct, stereoscopic image as the instructor and can follow the working sequences with their own eyes, will learn their new tasks quicker and more easily.

Discussion stereomicroscope

- Stereoscopic, upright and laterally-correct image for both observers
- Light pointer positionable as required, and with automatic switch off
- Binocular tubes, interpupillary distance and dioptric setting individually adjustable
- Accessories usable for photography and video
- Stable universal stand with coarse and fine focusing
- Stage carriers with magnetic linkage

The discussion stereomicroscope, as a ready-made work station, creates ideal conditions not only for training new employees, but also for experts discussing technical problems. Both users simultaneously see the same stereoscopic image. An illuminated pointer, which can be positioned on the respective point of interest on the object, facilitates understanding.

The discussion tube (Order no. 10 479 887) is equipped with the MS5, MZ6, MZ7$_5$, MZ9$_5$, MZ12$_5$ or MZ16 optics carrier and connected to the universal stand (Order no. 10 445 153 or 10 445 154) by means of a coarse/fine drive (focusing range 65mm) (Order no. 10 445 629) (see page 23). Thanks to the modular construction this outfit can also be equipped with a choice of binocular tubes and accessories.



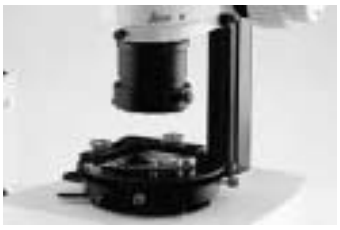
Discussion stereomicroscope

Measuring, polarization

Polarization sets
There is a choice of two polarizing sets for use with the transmitted-light stands:
– Analyzer (Order no. 10 315 306) for objectives, achromat, or (Order no. 10 367 929) for planachromatic and planapochromatic objectives, rotatable polarization stage ∅120mm (Order no. 10 446 302) with sensitive tint-plate compensator (Order no. 10 361 719), object guide (Order no. 10 382 130), 360° scale and vernier with crosshair graticule (Order no. 10 376 120)
– Analyzer (Order no. 10 315 306) for objectives, achromat, or (Order no. 10 367 929) for planachromatic and planapochromatic objectives and glass insert with polarizer (Order no. 10 446 228) ∅120mm

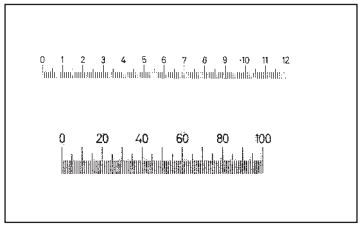
Using the rotatable polarization stage together with the sensitive tint-plate even weak double-refraction can be detected. After the crosshair graticule in one eyepiece has been used to center the rotatable stage, the specimen held tightly in the mechanical stage can be turned without drift out of the field of view. The range of movement of the mechanical stage is 76mm × 28mm. Angle measurements using the scale of 0°–360° and the vernier for $^{1}/_{10}$° on the rotatable stage provide further information on the character and structure of the double-refracting elements.

Accessories for measuring
The graticules for length measurements and numbering are fitted in mounts and can be inserted into the eyepieces. A highly precise stage micrometer with a 50mm scale, with a graduation of 0.1mm and 0.01mm (Order no. 10 310 345), permits calibration according to the selected magnification.
For angle measurements see rotatable polarization stage.

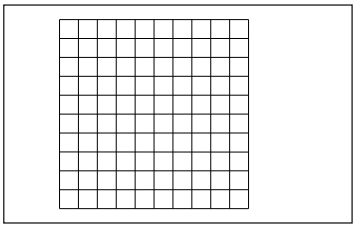


Rotatable polarization stage with sensitive tint-plate, mechanical stage and 360° scale and vernier, analyzer

Graticule and eyepiece insert



Scale 12mm:120
(Order no. 10 376 119)
Scale 5mm:100
(Order no. 10 394 771)



Grid 100×1mm²
(Order no. 10 376 122)

Vertical/oblique observation, drawing, double-iris diaphragm

The requirements

A high-performance stereomicroscope should still have additional reserves when the potential of less sophisticated instruments have already been exhausted. Additional information about the object demands additional observation techniques, such as for example, the side view all around the object.

Drawing tube (Order no. 10 446 193)

Attachment for vertical and oblique observation® (Order no 10 445 927)

Double-iris diaphragm (Order no. 10 445 156)

Attachment for vertical and oblique observation®
Three-dimensional objects such as assembled printed circuit boards, insects or plants can be inspected from all sides without tilting or rotating, at an angle of 45°.
The patented attachment for vertical and oblique observation is to be used with the achromatic objective 1×. The magnification factor is 0.6×. A fibre-optic light guide is a suitable source of illumination.
Please order the intermediate rings appropriate to the instrument (see page 67).

Drawing tube

- The object and the drawing surface are visible at the same time
- Suitable for drawing for left and right-handed persons
- Work is possible in the daylight
- Documents can be mirrored-in

When the beam path is switched on, the user sees the object, the drawing surface and the pen simultaneously in the binocular tube, upright and laterally correct. Contours and characteristic features can be sketched on various planes of the object. In addition, documents and scales can be mirrored-in and photographed along with the object.

Double-iris diaphragm
The double-iris diaphragm enables an infinitely variable adjustment of the depth of field. Being extremely thin, the double-iris diaphragm is a useful accessory for observing and photographing three-dimensional objects. Mounted in the Leica MZ16 and MZ16 A and in the video/phototubes HU, HV.

Leica MS5, MZ6 optical data

Objectives		1× Plan 1× Achromat 0.8× Plan*		1× Planapo*		1.6× Planapo* 2 × Achromat		0.63× Planapo* 0.8 × Achromat		0.5× Plan* 0.63 × Achromat		0.32 × Achromat		0.5 × Achromat		1.5 × Achromat		Ergo Objective 0.4×–0.63×			
Eyepieces	Magnification changer	Working distances in mm																			
		81 Plan 89 Achromat 112 Plan		55 Planapo		19 Planapo 27 Achromat		97 Planapo 112 Achromat		135 Plan 149 Achromat		297 Achromat		187 Achromat		49 Achromat		63.5mm		153.5mm	
		Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)
10×/21B	0.63	6.3	33.3	7.9	26.6	12.6	16.7	5	42	3.9	53.8	2	105	3.2	65.6	9.4	22.3	4	52.5	2.6	80.8
	0.8	8	26.3	10	21	16	13.1	6.4	32.8	5	42	2.5	84	4	52.5	11.9	17.6	5	41.2	3.3	63.6
	1	10	21	12.5	16.8	20	10.5	8	26.3	6.3	33.3	3.1	67.7	5	42	14.9	14.1	6.4	32.8	4	51.2
	1.25	12.5	16.8	15.6	13.5	25	8.4	10	21	7.8	26.9	3.9	53.8	6.3	33.3	18.7	11.2	8	26.3	5	41.2
	1.6	16	13.1	20	10.5	32	6.6	12.8	16.4	10	21	5	42	8	26.3	23.9	8.8	10.2	20.6	6.6	31.8
	2	20	10.5	25	8.4	40	5.3	16	13.1	12.5	16.8	6.3	33.3	10	21	29.9	7	12.7	16.5	8.2	25.6
	2.5	25	8.4	31.3	6.7	50	4.2	20	10.5	15.6	13.5	7.8	26.9	12.5	16.8	37.3	5.6	15.9	13.2	10.3	20.4
	3.2	32	6.6	40	5.3	64	3.3	25.6	8.2	20	10.5	10	21	16	13.1	47.8	4.4	20.4	10.3	13.2	15.9
	4	40	5.3	50	4.2	80	2.6	32	6.6	25	8.4	12.5	16.8	20	10.5	59.7	3.5	25.5	8.2	16.5	12.7
16×/14B	0.63	10.1	22.2	12.6	17.8	20.2	11.1	8.1	27.7	6.3	35.6	3.2	70	5	44.8	15	14.9	6.4	35	4	54.6
	0.8	12.8	17.5	16	14	25.6	8.8	10.2	22	8	28	4	56	6.4	35	19.1	11.7	8.2	27.3	5.3	42.3
	1	16	14	20	11.2	32	7	12.8	17.5	10	22.4	5	44.8	8	28	23.9	9.4	10.2	22	6.6	33.9
	1.25	20	11.2	25	9	40	5.6	16	14	12.5	17.9	6.3	35.6	10	22.4	29.9	7.5	12.7	17.6	8.2	27.3
	1.6	25.6	8.8	32	7	51.2	4.4	20.5	10.9	16	14	8	28	12.8	17.5	38.2	5.9	16.3	13.7	10.5	21.3
	2	32	7	40	5.6	64	3.5	25.6	8.8	20	11.2	10	22.4	16	14	47.8	4.7	20.4	11	13.2	17
	2.5	40	5.6	50	4.5	80	2.8	32	7	25	9	12.5	17.9	20	11.2	59.7	3.8	25.5	8.8	16.5	13.6
	3.2	51.2	4.4	64	3.5	102.4	2.2	41	5.5	32	7	16	14	25.6	8.8	76.4	2.9	32.6	6.9	21	10.6
	4	64	3.5	80	2.8	128	1.8	51.2	4.4	40	5.6	20	11.2	32	7	95.5	2.3	40.8	5.5	26.3	8.5
25×/9.5B	0.63	15.8	15	19.7	12.1	31.5	7.5	12.6	18.8	9.8	24.2	4.9	48.5	7.9	30.1	23.5	10.1	10	23.8	6.5	36.5
	0.8	20	11.9	25	9.5	40	5.9	16	14.8	12.5	19	6.3	37.7	10	23.8	29.9	7.9	12.7	18.7	8.2	29
	1	25	9.5	31.3	7.6	50	4.8	20	11.9	15.6	15.2	7.8	30.4	12.5	19	37.3	6.4	15.9	14.9	10.3	23
	1.25	31.3	7.6	39.1	6.1	62.5	3.8	25	9.5	19.5	12.2	9.8	24.2	15.6	15.2	46.6	5.1	19.9	11.9	12.9	18.4
	1.6	40	5.9	50	4.8	80	3	32	7.4	25	9.5	12.5	19	20	11.9	59.7	4	25.5	9.3	16.5	14.4
	2	50	4.8	62.5	3.8	100	2.4	40	5.9	31.3	7.6	15.6	15.2	25	9.5	74.6	3.2	31.8	7.5	20.6	11.5
	2.5	62.5	3.8	78.1	3	125	1.9	50	4.8	39.1	6.1	19.5	12.2	31.3	7.6	93.3	2.5	39.8	6	25.7	9.2
	3.2	80	3	100	2.4	160	1.5	64	3.7	50	4.8	25	9.5	40	5.9	119.4	2	51	4.7	32.9	7.2
	4	100	2.4	125	1.9	200	1.2	80	3	62.5	3.8	31.3	7.6	50	4.8	149.3	1.6	63.7	3.7	41.2	5.8
40×/6B	0.63	25.2	9.5	31.5	7.6	50.4	4.8	20.2	11.9	15.8	15.2	7.9	30.4	12.6	19	37.6	6.4	16	14.9	10.4	23
	0.8	32	7.5	40	6	64	3.8	25.6	9.4	20	12	10	24	16	15	47.8	5	20.4	11.8	13.2	18.2
	1	40	6	50	4.8	80	3	32	7.5	25	9.6	12.5	19.2	20	12	59.7	4	25.5	9.4	16.5	14.5
	1.25	50	4.8	62.5	3.8	100	2.4	40	6	31.3	7.7	15.6	15.4	25	9.6	74.6	3.2	31.8	7.5	20.6	11.7
	1.6	64	3.8	80	3	128	1.9	51.2	4.7	40	6	20	12	32	7.5	95.5	2.5	40.8	5.9	26.3	9
	2	80	3	100	2.4	160	1.5	64	3.8	50	4.8	25	9.6	40	6	119.4	2	51	4.7	32.9	7.3
	2.5	100	2.4	125	1.9	200	1.2	80	3	62.5	3.8	31.3	7.7	50	4.8	149.3	1.6	63.7	3.8	41.2	5.8
	3.2	128	1.9	160	1.5	256	0.9	102.4	2.3	80	3	40	6	64	3.8	191	1.3	81.5	2.9	52.7	4.6
	4	160	1.5	200	1.2	320	0.8	128	1.9	100	2.4	50	4.8	80	3	238.8	1	101.9	2.4	65.8	3.6

MS5: Positions 0.63, 1, 1.6, 2.5, 4

* When using the planachromatic and planapochromatic objectives MZ12$_5$, the magnification is increased by the factor 1.25×.

Performance features

Stereomicroscopes MS5 and MZ6	
Construction principle	Multicoated optical system with 2 parallel beam paths and 1 main objective, lead-free, parfocal
Surface resistivity of the antistatic material	$<10^{11}$ Ohm/square, discharge time <2 seconds, from 1000V to 100V
Max. numerical aperture	0.150 with objective achromat 2× and planachromatic objective 1.6× 0.075 with objective achromat 1×
Resolution line pairs/mm	450 with objective achromat 2× or planapochromatic objective 1.6× 225 with objective 1×
Magnification changer	MS5: five-step, 0.63×, 1×, 1.6×, 2.5×, 4× MZ6: 6:1 Zoom, 0.63× to 4×
7 ratchet position switches (MZ6)	at 0.8, 1, 1.25, 1.6, 2, 2.5, 3.2
Magnifications	6.3× to 40× (with objective 1×/eyepieces 10×)
Total magnification	2× to 320×
Field diameter	0.8mm to 104.2mm
Working distances	81mm (1× planachromatic), 97mm (0.63× planapochromatic), 112mm (0.8× planachromatic), 135mm (0.5× planachromatic), 15mm (planapochromatic 2×), 27mm–297mm (achromats)
Planachromatic and planapochromatic objectives	1× (planachromatic, planapochromatic), 0.8× (planachromatic), 0.5× (planachromatic), 0.63× (planapochromatic), 1.6× (planapochromatic), 2× (planapochromatic) lead-free
Achromatic interchangeable objectives	1×, 1.5×, 2×, 0.8×, 0.63×, 0.5×, 0.32×, Ergo objective 0.4×–0.63×, 90mm adjustment range (working distance 63.5–153.5mm)
Eyepieces	Wide-field eyepieces for spectacle wearers distortion-free, 10×/21B, 16×/14B, 25×/9.5B, 40×/6B, low-priced wide-field eyepieces 10×/21, soft eyecups
Dioptric correction	from +5 to –5
Eyecups	Variable degree of eye contact
Binocular tubes	Apochromatic ErgoTube® 10° to 50° with synchronized interpupillary adjustment, Various ErgoModules®
Interpupillary distance	52 to 76mm adjustable
Stands, illuminations	
Focusing drive	Coarse, fine, manual and motorized, tiltable for OEM adaptations (bonders)
Length of column	300mm and 500mm side-faced profile
Microscope carrier	Two basic heights, optics carrier rotatable through 360°, stereoscopic or axial observation
Swinging-arm stand	ESD version with 400/25mm column, large stand with 550/50mm column, alternative with stage clamp 20–50mm
Universal stand	450/50mm or 800/50mm column, 52×34cm baseplate, magnetic carrier for stages
Transmitted-light stands	Bright field, bright and dark field, high-performance base
Stages	Various, incl. rotatable polarization stage, Leica MATS Thermocontrol System with thermo-stage
Incident lamps	Inclined, coaxial, vertical, fibre-optic light guides, and cold-light sources, ESD-discharging, LED illumination (Laser Emitting Diode), fluorescence module
Accessories	
Photomicrographic systems	Leica MPS30 and MPS60, fully automatic, with databack
Video, filming	Various configurations, Leica IC A integrated video module, Leica DC digital imaging systems
Image archiving, image processing	Leica Image Manager, QWin, materials work station
Discussion tube	For training and education
Drawing tube	For both left and right-handed users
Double-iris diaphragm	For increasing the depth of field
Measurement graticules	For length measurements and counting
Vertical and oblique observation	45° side view around the complete object
Filter-slide housing	For 2 gelatine filters

Optical data for Leica MZ7.5, MZ9.5

Objectives		1 × Plan 1× Achromat 0.8×Plan**		1× Planapo**		1.6× Planapo** 2× Achromat		0.63× Planapo** 0.8× Achromat		0.5× Plan** 0.63× Achromat		0.32× Achromat		0.5× Achromat		1.5× Achromat		Ergo objective 0.4×–0.63×			
		Working distances in mm																			
Eyepieces	Magnification changer	81 Plan 89 Achromat 112 Plan		55 Planapo		19 Planapo 27 Achromat		97 Plan 112 Achromat		135 Plan 149 Achromat		297 Achromat		187 Achromat		49 Achromat		63.5mm		153.5mm	
		Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)
10×/21B	0.63	6.3	33.3	7.9	26.6	12.6	16.7	5	42	3.9	53.8	2	105	3.2	65.6	9.4	22.3	4	52.5	2.6	80.8
	0.8	8	26.3	10	21	16	13.1	6.4	32.8	5	42	2.5	84	4	52.5	11.9	17.6	5	41.2	3.3	63.6
	1	10	21	12.5	16.8	20	10.5	8	26.3	6.3	33.3	3.1	67.7	5	42	14.9	14.1	6.4	32.8	4	51.2
	1.25	12.5	16.8	15.6	13.5	25	8.4	10	21	7.8	26.9	3.9	53.8	6.3	33.3	18.7	11.2	8.0	26.3	5	41.2
	1.6	16	13.1	20	10.5	32	6.6	12.8	16.4	10	21	5	42	8	26.3	23.9	8.8	10.2	20.6	6.6	31.8
	2	20	10.5	25	8.4	40	5.3	16	13.1	12.5	16.8	6.3	33.3	10	21	29.9	7	12.7	16.5	8.2	25.6
	2.5	25	8.4	31.3	6.7	50	4.2	20	10.5	15.6	13.5	7.8	26.9	12.5	16.8	37.3	5.6	15.9	13.2	10.3	20.4
	3.2	32	6.6	40	5.3	64	3.3	25.6	8.2	20	10.5	10	21	16	13.1	47.8	4.4	20.4	10.3	13.2	15.9
	4	40	5.3	50	4.2	80	2.6	32	6.6	25	8.4	12.5	16.8	20	10.5	59.7	3.5	25.5	8.2	16.5	12.7
	5	50	4.2	62.5	3.4	100	2.1	40	5.3	31.3	6.7	15.6	13.5	25	8.4	74.6	2.8	31.8	6.6	20.6	10.2
	6*	60	3.5	75	2.8	120	1.8	48	4.4	37.5	5.6	18.8	11.2	30	7	89.6	2.3	38.2	5.5	24.7	8.5
16×/14B	0.63	10.1	22.2	12.6	17.8	20.2	11.1	8.1	27.7	6.3	35.6	3.2	70	5	44.8	15	14.9	6.4	35	4	54.6
	0.8	12.8	17.5	16	14	25.6	8.8	10.2	22	8	28	4	56	6.4	35	19.1	11.7	8.2	27.3	5.3	42.3
	1	16	14	20	11.2	32	7	12.8	17.5	10	22.4	5	44.8	8	28	23.9	9.4	10.2	22	6.6	33.9
	1.25	20	11.2	25	9	40	5.6	16	14	12.5	17.9	6.3	35.6	10	22.4	29.9	7.5	12.7	17.6	8.2	27.3
	1.6	25.6	8.8	32	7	51.2	4.4	20.5	10.9	16	14	8	28	12.8	17.5	38.2	5.9	16.3	13.7	10.5	21.3
	2	32	7	40	5.6	64	3.5	25.6	8.8	20	11.2	10	22.4	16	14	47.8	4.7	20.4	11	13.2	17
	2.5	40	5.6	50	4.5	80	2.8	32	7	25	9	12.5	17.9	20	11.2	59.7	3.8	25.5	8.8	16.5	13.6
	3.2	51.2	4.4	64	3.5	102.4	2.2	41	5.5	32	7	16	14	25.6	8.8	76.4	2.9	32.6	6.9	21	10.6
	4	64	3.5	80	2.8	128	1.8	51.2	4.4	40	5.6	20	11.2	32	7	95.5	2.3	40.8	5.5	26.3	8.5
	5	80	2.8	100	2.2	160	1.4	64	3.5	50	4.5	25	9	40	5.6	119.4	1.9	51	4.4	32.9	6.8
	6*	96	2.3	120	1.9	192	1.2	76.8	2.9	60	3.7	30	7.5	48	4.7	143.3	1.6	61	3.7	39.5	5.7
25×/9.5B	0.63	15.8	15	19.7	12.1	31.5	7.5	12.6	18.8	9.8	24.2	4.9	48.5	7.9	30.1	23.5	10.1	10	23.8	6.5	36.5
	0.8	20	11.9	25	9.5	40	5.9	16	14.8	12.5	19	6.3	37.7	10	23.8	29.9	7.9	12.7	18.7	8.2	29
	1	25	9.5	31.3	7.6	50	4.8	20	11.9	15.6	15.2	7.8	30.4	12.5	19	37.3	6.4	15.9	14.9	10.3	23
	1.25	31.3	7.6	39.1	6.1	62.5	3.8	25	9.5	19.5	12.2	9.8	24.2	15.6	15.2	46.6	5.1	19.9	11.9	12.9	18.4
	1.6	40	5.9	50	4.8	80	3	32	7.4	25	9.5	12.5	19	20	11.9	59.7	4	25.5	9.3	16.5	14.4
	2	50	4.8	62.5	3.8	100	2.4	40	5.9	31.3	7.6	15.6	15.2	25	9.5	74.6	3.2	31.8	7.5	20.6	11.5
	2.5	62.5	3.8	78.1	3	125	1.9	50	4.8	39.1	6.1	19.5	12.2	31.3	7.6	93.3	2.5	39.8	6	25.7	9.2
	3.2	80	3	100	2.4	160	1.5	64	3.7	50	4.8	25	9.5	40	5.9	119.4	2	51	4.7	32.9	7.2
	4	100	2.4	125	1.9	200	1.2	80	3	62.5	3.8	31.3	7.6	50	4.8	149.3	1.6	63.7	3.7	41.2	5.8
	5	125	1.9	156.3	1.5	250	1	100	2.4	78.1	3	39.1	6.1	62.5	3.8	186.6	1.3	79.6	3	51.4	4.6
	6*	150	1.6	187.5	1.3	300	0.8	120	2	93.8	2.5	46.9	5.1	75	3.2	223.9	1.1	95.5	2.5	61.7	3.8
40×/6B	0.63	25.2	9.5	31.5	7.6	50.4	4.8	20.2	11.9	15.8	15.2	7.9	30.4	12.6	19	37.6	6.4	16	14.9	10.4	23
	0.8	32	7.5	40	6	64	3.8	25.6	9.4	20	12	10	24	16	15	47.8	5	20.4	11.8	13.2	18.2
	1	40	6	50	4.8	80	3	32	7.5	25	9.6	12.5	19.2	20	12	59.7	4	25.5	9.4	16.5	14.5
	1.25	50	4.8	62.5	3.8	100	2.4	40	6	31.3	7.7	15.6	15.4	25	9.6	74.6	3.2	31.8	7.5	20.6	11.7
	1.6	64	3.8	80	3	128	1.9	51.2	4.7	40	6	20	12	32	7.5	95.5	2.5	40.8	5.9	26.3	9
	2	80	3	100	2.4	160	1.5	64	3.8	50	4.8	25	9.6	40	6	119.4	2	51	4.7	32.9	7.3
	2.5	100	2.4	125	1.9	200	1.2	80	3	62.5	3.8	31.3	7.7	50	4.8	149.3	1.6	63.7	3.8	41.2	5.8
	3.2	128	1.9	160	1.5	256	0.9	102.4	2.3	80	3	40	6	64	3.8	191	1.3	81.5	2.9	52.7	4.6
	4	160	1.5	200	1.2	320	0.8	128	1.9	100	2.4	50	4.8	80	3	238.8	1	101.9	2.4	65.8	3.6
	5	200	1.2	250	1	400	0.6	160	1.5	125	1.9	62.5	3.8	100	2.4	298.5	0.8	127.4	1.9	82.3	2.9
	6*	240	1	300	0.8	480	0.5	192	1.3	150	1.6	75	3.2	120	2	358.2	0.7	152.9	1.6	98.8	2.4

* Position 6 for MZ9.5 only

** When using the planachromatic and planapochromatic objectives MZ12.5, the magnification is increased by the factor 1.25×.

Performance features

Stereomicroscopes Leica MZ7$_5$ and MZ9$_5$	
Design principle	Multiple-coated, parfocal high-performance optical system with 2 parallel beam paths and 1 main objective (CMO), lead-free, parfocal
Surface resistance of antistatic material	<10^{11} Ohm/square, discharge time <2 seconds, from 1000V to 100V
Numerical aperture	MZ7$_5$: 0.164 with planapochromatic objective 1.6× , 0.082 with planachromatic objective 1×, 0.103 with planapochromatic 1× 0.2 with planapochromatic objective 2× MZ9$_5$: 0.2 with planapochromatic objective 1.6× , 0.1 with planachromatic objective 1×, 0.125 with planapochromatic 1× 0.25 with planapochromatic objective 2×
Resolution	MZ7$_5$: 492 line-pairs/mm with planapochromatic objective 1.6×, 246 line-pairs/mm with planachromatic objective 1× 309 line-pairs/mm with planapochromatic 1×, 615 line-pairs/mm with planapochromatic objective 2× MZ9$_5$: 300 line-pairs/mm with planachromatic objective 1× , 375 line-pairs/mm with planapochromatic 1× 600 line-pairs/mm with planapochromatic objective 1.6×, 750 line-pairs/mm with planapochromatic objective 2×
Magnification changer	MZ7$_5$: Zoom 7.9:1, range 0.63× to 5× / MZ9$_5$: Zoom 9.5:1, 0.63× to 6×
Engageable ratchet positions	At 0.8, 1, 1.25, 1.6, 2, 2.5, 3.2, 4, 5 (MZ9$_5$)
Magnifications	MZ7$_5$: 6.3× to 50× (with objective 1×/eyepieces 10×) MZ9$_5$: 6.3× to 60×
Total magnification	MZ7$_5$: 2× to 400× / MZ9$_5$: 2× to 480×
Field diameter	0.6mm to 105mm
Working distances	81mm (1× planachromatic), 112mm (0.8× planachromatic), 135mm (0.5× planachromatic), 97mm (0.63× planapochromatic), 55mm (1× planapochromatic), 15mm (planapochromatic 2×), 19mm (1.6× planapochromatic), 27–297mm (achromats)
Planachromatic and planapochromatic objectives	0.5× (planachromatic), 0.8× (planachromatic), 0.63× (planapochromatic), 1× (planachromatic, planapochromatic), 1.6× (planapochromatic), 2× (planapochromatic), lead-free
Achromatic	1×, 1.5×, 2×, 0.8×, 0.63×, 0.5×, 0.32×, Ergo objective 0.4×–0.63×, 90mm adjustment range interchangeable objectives (working distance 63.5–153.5mm)
Eyepieces	Wide-field for spectacle wearers. distortion-free, 10×/21B, 16×/14B, 25×/9.5B, 40×/6B, low-priced wide-field eyepieces 10×/21, soft eyecups
Dioptric correction	+5 to–5
Eyecups	Variable degree of eye contact
Binocular tubes	Apochromatic ErgoTube® 10° to 50° with synchronized interpupillary adjustment Various ErgoModules®
Interpupillary distance	52 to 76mm
Stands, illuminations	
Focusing drive	Coarse, fine, manual and motorized, tiltable for OEM adaptations (bonders)
Length of column	300mm and 500mm side-faced column
Microscope carrier	Two basic heights, optics carrier rotatable through 360°, Stereoscopic or axial observation
Swinging-arm stand	ESD version with 400/25mm column, large stand with 550/50mm column, Alternative with stage clamp 20–50mm
Universal stand	450/50mm or 800/50mm column, 52×34cm baseplate, magnetic carrier for stages
Transmitted-light stands	Bright field, bright and dark field, high-performance base
Stages	Various, incl. rotatable polarization stage, Leica MATS Thermocontrol System with thermo-stage
Incident lamps	Inclined, coaxial, vertical, fibre-optic light guides, and cold-light sources, ESD-discharging, LED illumination (Laser Emitting Diode), fluorescence module
Accessories	
Photomicrographic systems	Leica MPS30 and MPS60, fully automatic, with databack
Video, filming	Various configurations, Leica IC A integrated video module, Leica DC digital imaging systems
Image archiving, image processing	Leica Image Manager, QWin, materials work station
Discussion tube	For training and education
Drawing tube	For right-handers and left-handers
Double-iris diaphragm	For increasing the depth of field
Measurement graticules	For length measurements and counting
Vertical and oblique observation	45° side view around the complete object
Filter-slide housing	For 2 gelatine filters

Optical data for Leica MZ12$_5$, MZ16 and MZ16 A

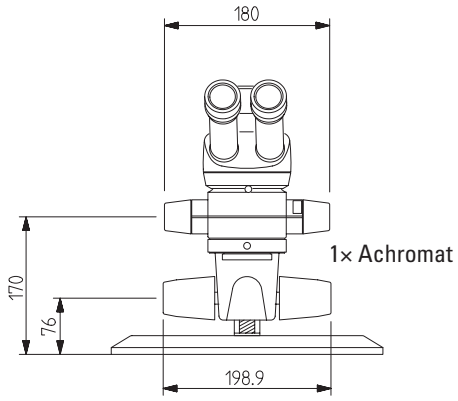
Objectives		1 ×Plan 1× Planapo		0.5× Plan		0.63× Planapo		0.8× Plan		1.6× Planapo		2× Planapo	
		Working distances in mm											
		60 Plan 55 Planapo		135 Plan		97 Planapo		112 Plan		19 Planapo		15 Planapo	
Eyepieces	Magnification changer	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)	Total magnification	Field of view diameter (mm)
10×/21B	0.71	7.1	29.6	3.5	59.1	4.5	47	5.7	37	11.4	18.5	14.2	14.8
	0.8	8	26.3	4	52.5	5.1	41.2	6.4	32.8	12.8	16.4	16	13.1
	1	10	21	5	42	6.4	32.8	8	26.3	16	13.1	20	10.5
	1.25	12.5	16.8	6.3	33.3	8	26.3	10	21	20	10.5	25	8.4
	1.6	16	13.1	8	26.3	10.2	20.6	12.8	16.4	25.6	8.2	32	6.6
	2	20	10.5	10	21	12.8	16.4	16	13.1	32	6.6	40	5.3
	2.5	25	8.4	12.5	16.8	16	13.1	20	10.5	40	5.3	50	4.2
	3.2	32	6.6	16	13.1	20.5	10.2	25.6	8.2	51.2	4.1	64	3.3
	4	40	5.3	20	10.5	25.6	8.2	32	6.6	64	3.3	80	2.6
	5	50	4.2	25	8.4	32	6.6	40	5.3	80	2.6	100	2.1
	6.3	63	3.3	31.5	6.7	40.3	5.2	50.4	4.2	100.8	2.1	126	1.7
	8	80	2.6	40	5.3	51.2	4.1	64	3.3	128	1.6	160	1.3
	10	100	2.1	50	4.2	64	3.3	80	2.6	160	1.3	200	1.1
	11.5	115	1.8	57.5	3.7	72.5	2.9	92	2.2	184	1.1	230	0.9
16×/14B	0.71	11.4	19.7	5.7	39.4	7.2	31.3	9.1	24.6	18.2	12.3	22.8	9.8
	0.8	12.8	17.5	6.4	35	8.2	27.3	10.2	22	20.5	10.9	25.6	8.8
	1	16	14	8	28	10.2	22	12.8	17.5	25.6	8.8	32	7
	1.25	20	11.2	10	22.4	12.8	17.5	16	14	32	7	40	5.6
	1.6	25.6	8.8	12.8	17.5	16.4	13.7	20.5	10.9	41	5.5	51.2	4.4
	2	32	7	16	14	20.5	10.9	25.6	8.8	51.2	4.4	64	3.5
	2.5	40	5.6	20	11.2	25.6	8.8	32	7	64	3.5	80	2.8
	3.2	51.2	4.4	25.6	8.8	32.8	6.8	41	5.5	81.9	2.7	102.4	2.2
	4	64	3.5	32	7	41	5.5	51.2	4.4	102.4	2.2	128	1.8
	5	80	2.8	40	5.6	51.2	4.4	64	3.5	128	1.8	160	1.4
	6.3	100.8	2.2	50.4	4.4	64.5	3.5	80.6	2.8	161.3	1.4	201.6	1.1
	8	128	1.8	64	3.5	81.9	2.7	102.4	2.2	204.8	1.1	256	0.9
	10	160	1.4	80	2.8	102.4	2.2	128	1.8	256	0.9	320	0.7
	11.5	184	1.2	92	2.4	115.9	1.9	147.2	1.5	294.4	0.8	368	0.6
25×/9.5B	0.71	17.7	13.4	8.9	26.8	11.1	21.2	14.2	16.7	28.3	8.4	35.4	6.7
	0.8	20	11.9	10	23.8	12.8	18.6	16	14.8	32	7.4	40	5.9
	1	25	9.5	12.5	19	16	14.8	20	11.9	40	5.9	50	4.8
	1.25	31.3	7.6	15.6	15.2	20	11.9	25	9.5	50	4.8	62.5	3.8
	1.6	40	5.9	20	11.9	25.6	9.3	32	7.4	64	3.7	80	3
	2	50	4.8	25	9.5	32	7.4	40	5.9	80	3	100	2.4
	2.5	62.5	3.8	31.3	7.6	40	5.9	50	4.8	100	2.4	125	1.9
	3.2	80	3	40	5.9	51.2	4.6	64	3.7	128	1.9	160	1.5
	4	100	2.4	50	4.8	64	3.7	80	3	160	1.5	200	1.2
	5	125	1.9	62.5	3.8	80	3	100	2.4	200	1.2	250	1
	6.3	157.5	1.5	78.8	3	100.8	2.4	126	1.9	252	0.9	315	0.8
	8	200	1.2	100	2.4	128	1.9	160	1.5	320	0.7	400	0.6
	10	250	1	125	1.9	160	1.5	200	1.2	400	0.6	500	0.5
	11.5	287.5	0.8	143.8	1.7	181.1	1.3	230	1	460	0.5	575	0.4
40×/6B	0.71	28.4	8.4	14.2	16.9	17.9	13.4	22.7	10.5	45.4	5.3	56.8	4.2
	0.8	32	7.5	16	15	20.5	11.7	25.6	9.4	51.2	4.7	64	3.8
	1	40	6	20	12	25.6	9.4	32	7.5	64	3.8	80	3
	1.25	50	4.8	25	9.6	32	7.5	40	6	80	3	100	2.4
	1.6	64	3.8	32	7.5	41	5.9	51.2	4.7	102.4	2.3	128	1.9
	2	80	3	40	6	51.2	4.7	64	3.8	128	1.9	160	1.5
	2.5	100	2.4	50	4.8	64	3.8	80	3	160	1.5	200	1.2
	3.2	128	1.9	64	3.8	81.9	2.9	102.4	2.3	204.8	1.2	256	0.9
	4	160	1.5	80	3	102.4	2.3	128	1.9	256	0.9	320	0.8
	5	200	1.2	100	2.4	128	1.9	160	1.5	320	0.8	400	0.6
	6.3	252	1	126	1.9	161.3	1.5	201.6	1.2	403.2	0.6	504	0.5
	8	320	0.8	160	1.5	204.8	1.2	256	0.9	512	0.5	640	0.4
	10	400	0.6	200	1.2	256	0.9	320	0.8	640	0.4	800	0.3
	11.5	460	0.5	230	1	289.8	0.8	368	0.6	736	0.3	920	0.3

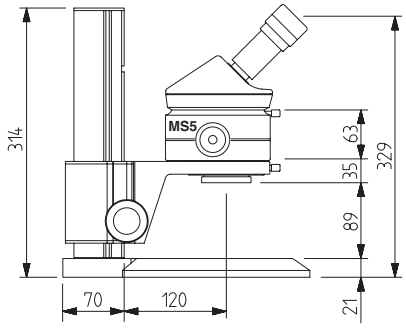
* Zoom positions 0.71 and 11.5 only for MZ16/MZ16 A

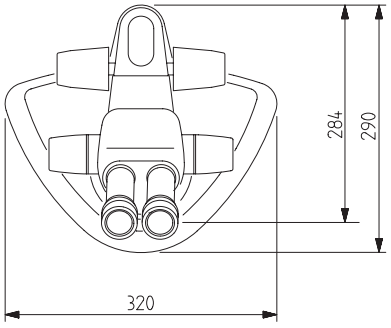
Performance features

Stereomicroscopes MZ125, MZ16 and MZ16 A	
Design principle	Multiple-coated, parfocal high-performance optical system with 2 parallel beam paths and 1 main objective (CMO), lead-free, parfocal
Surface resistivity of the antistatic material	$<10^{11}$ Ohm/square, discharge time <2 seconds, from 1000V to 100V
Numeric aperture	MZ125: 0.2 with planapochromatic objective 1.6×, 0.125 with planachromatic or planapochromatic objective 1× MZ16 and MZ16 A: 0.28 with planapochromatic objective 2×, 0.14 with planachromatic or planapochromatic objective 1×
Resolution	MZ125: 375 line-pairs/mm with planachromatic or planapochromatic objective 1×, 600 line-pairs/mm with planapochromatic objective 1.6×, 750 line-pairs/mm with planapochromatic objective 2× MZ16 and MZ16 A: 840 line-pairs/mm with planapochromatic objective 2×, 420 line-pairs/mm with planachromatic or planapochromatic objective 1×
Magnification changer	MZ125: Zoom 12.5:1, range 0.8× to 10× MZ16: apochromatic zoom 16:1 manual, range 0.71×–11.5× MZ16 A: apochromatic motor-zoom 16:1, range 0.71×–11.5×, control using hand switch, foot switch or PC, digital display of the current magnification, PC connection
Engageable ratchet positions	MZ125: 1, 1.25, 1.6, 2, 2.5, 3.2, 4, 5, 6.3, 8 MZ16 and MZ16 A: 0.8, 1, 1.25, 1.6, 2, 2.5, 3.2, 4, 5, 6.3, 8, 10
Magnifications (with objective 1×/eyepieces 10×)	MZ125: 8× to 100× MZ16 and MZ16 A: 7.1×–115×
Total magnification	MZ125: 4× to 640× / MZ16 and MZ16 A: 3.5×–920×
Field diameter	MZ125: 0.4mm to 52.5mm / MZ16 and MZ16 A: 0.3mm to 59mm
Working distances	60mm (1× planachromatic), 112mm (0.8× planachromatic), 135mm (0.5× planachromatic), 97mm (0.63× planapochromatic), 55mm (1× planapochromatic), 15mm (planapochromatic 2×), 19mm (1.6× planapochromatic), 91–400mm (achromats)
Planachromatic and planapochromatic objectives	1× (planachromatic, planapochromatic), 0.8× (planachromatic), 0.5× (planachromatic), 0.63× (planapochromatic), 1.6× (planapochromatic), 2× (planapochromatic), lead-free
Objective turret	MZ16 and MZ16 A: for 1× and 2× planapochromatic objective
Wide-field eyepieces for spectacle wearers	Distortion-free, 10×/21B, 16×/14B, 25×/9.5B, 40×/6B, soft eyecups
Dioptric correction	+5 to–5
Binocular tubes	Apochromatic ErgoTube® 10° to 50° with synchronized interpupillary adjustment, Various ErgoModules®
Interpupillary distance	52 to 76mm adjustable
Stands, illuminations	
Focusing drive	Coarse/fine, manual and motorized, tiltable for OEM adaptations (bonders)
Length of column	300mm and 500mm side-faced column
Microscope carrier	Two basic heights, optics carrier rotatable through 360°, Stereoscopic or axial observation
Swinging-arm stand	Large stand with column 550/50mm, alternative with table clamp 20–50mm
Universal stand	450/50mm or 800/50mm column, 52×34cm baseplate, magnetic carrier for stages
Transmitted-light stands	Bright field, bright and dark field, high-performance base
Stages	Various, incl. rotatable polarization stage, Leica MATS Thermocontrol System with thermo-stage
Incident lamps	Inclined, coaxial, vertical, fibre-optic light guides, and cold-light sources, ESD-discharge, LED illumination (Laser Emitting Diode), fluorescence module
Accessories	
Photomicrographic systems	Leica MPS30 and MPS60, fully automatic, with databack
Video, filming installations	Various configurations, Leica IC A integrated video module, Leica DC digital imaging systems
Image archiving, image processing	Leica Image Manager, QWin, materials work station
Discussion tube	For training and education
Drawing tube	For right-handers and left-handers
Double-iris	Diaphragm for increasing the depth of field (built into the MZ16 and MZ16 A)
Measuring graticules	MZ125 and MZ16: For measuring lengths and counting MZ16 A: Automatic calibration and display of measured values
Vertical and oblique observation	45° side view around the complete object
Filter-slide housing	For 2 gelatine filters

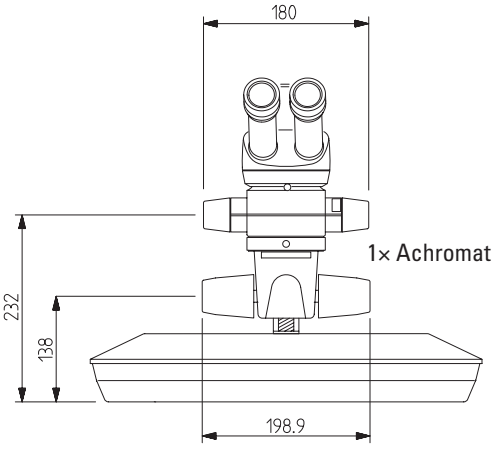
Dimensions of Leica MS5 with incident-light stand

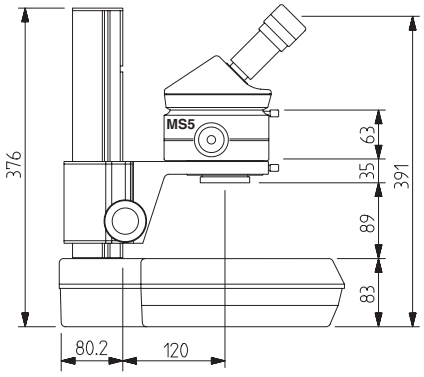


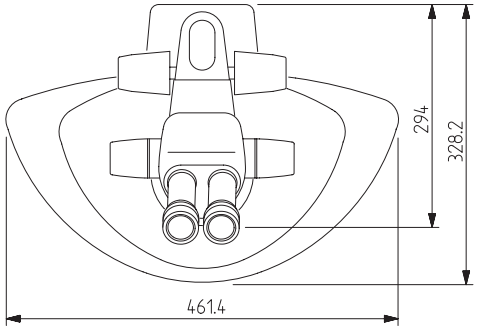




Dimensions of Leica MS5 with transmitted-light stand

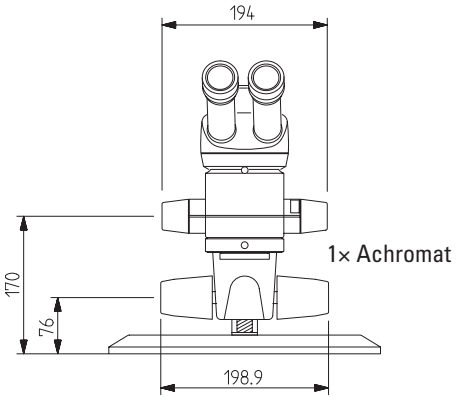


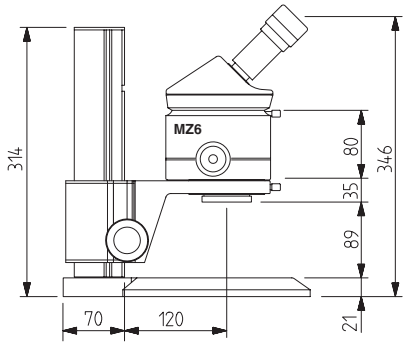


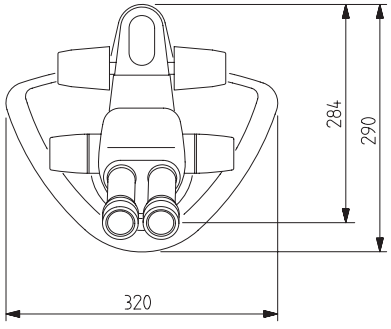


Dimensions in mm

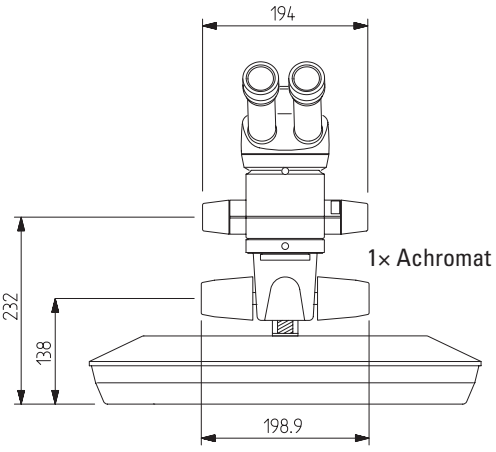
Dimensions of Leica MZ6 with incident-light stand

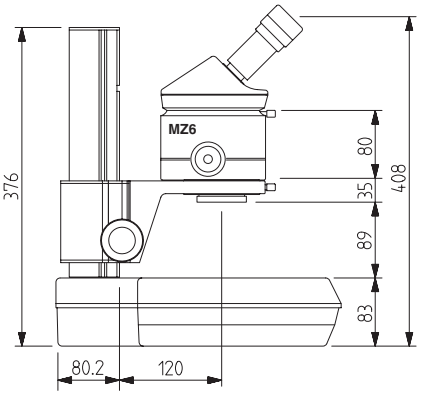


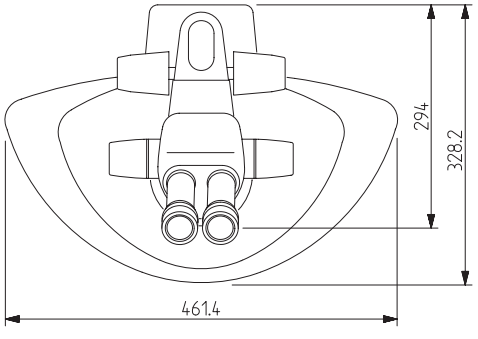




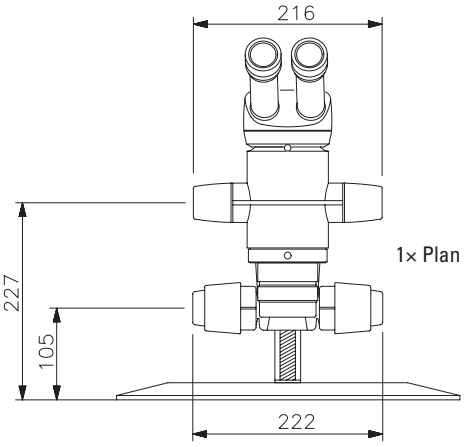
Dimensions of Leica MZ6 with transmitted-light stand

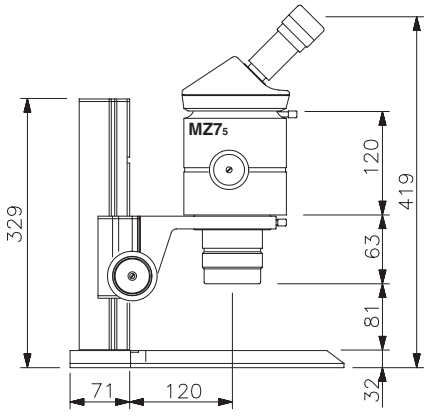


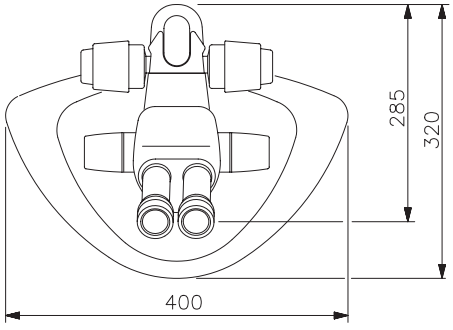




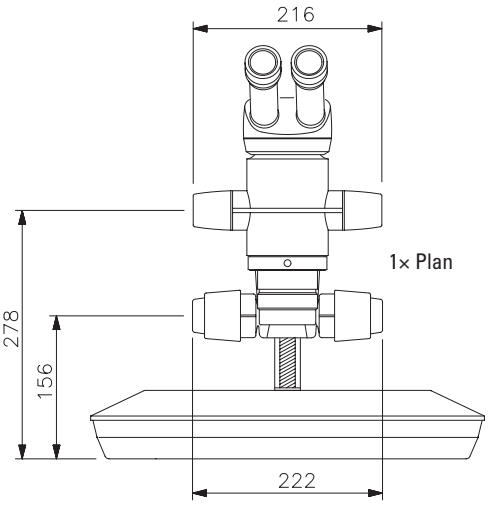
Dimensions of Leica MZ7₅ with incident-light stand

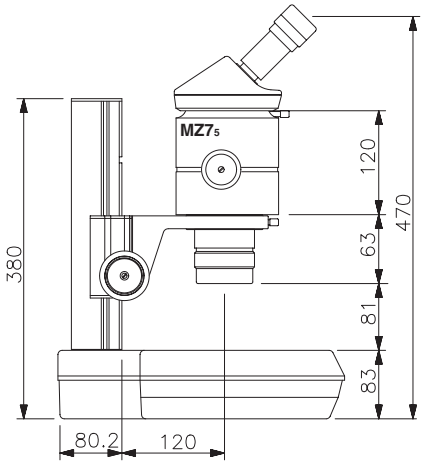


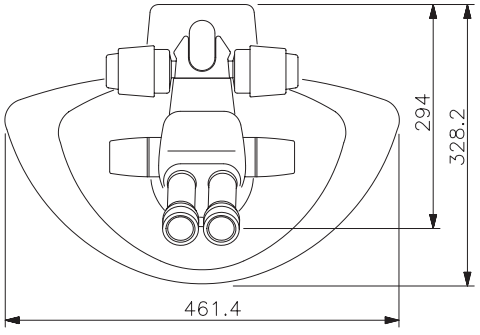




Dimensions of Leica MZ7₅ with transmitted-light stand

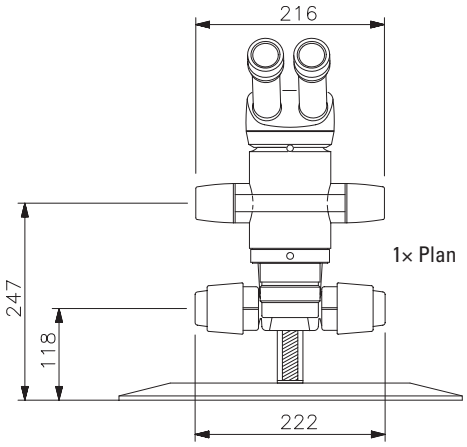


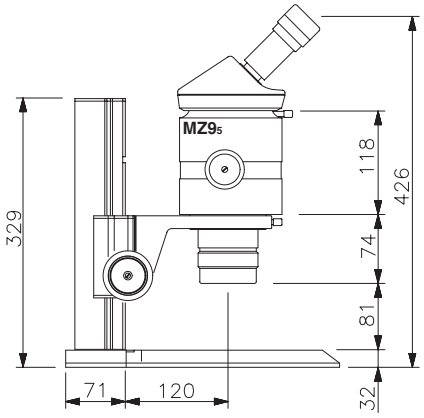


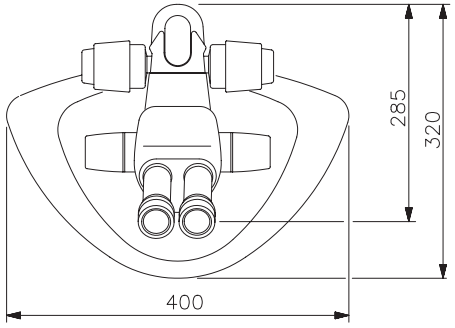


Dimensions in mm

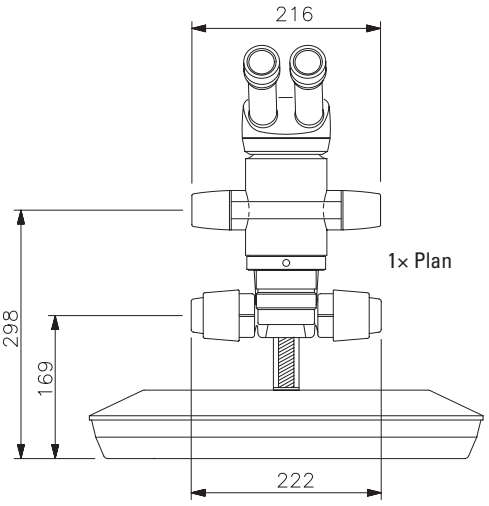
Dimensions of Leica MZ95 with incident-light stand

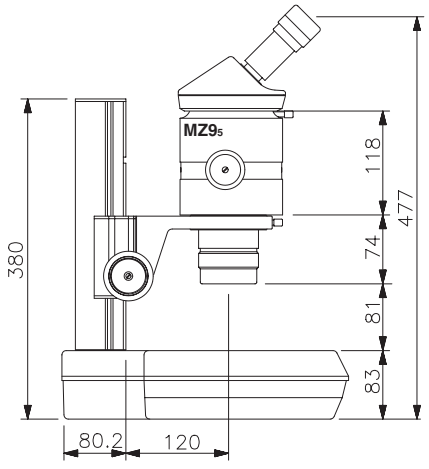


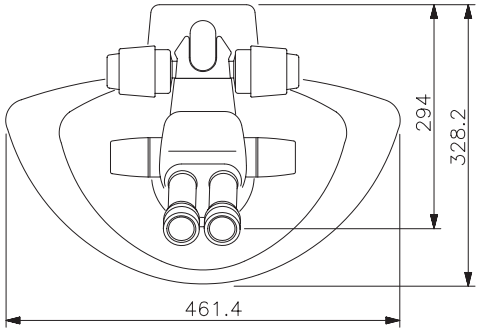




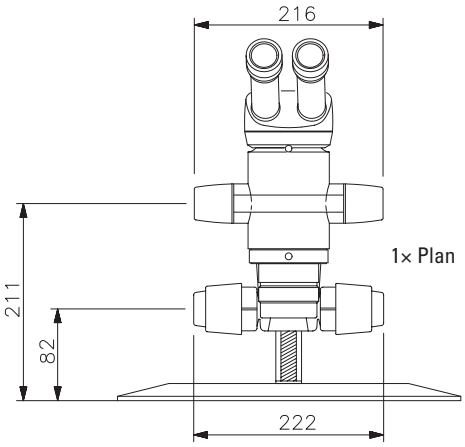
Dimensions of Leica MZ95 with transmitted-light stand

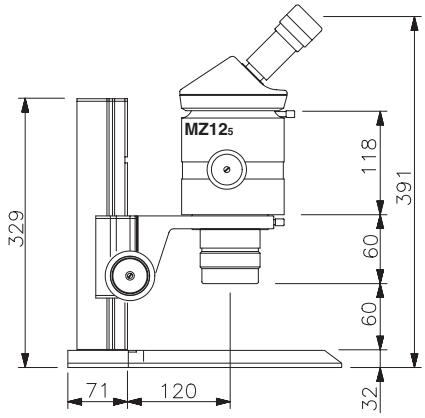


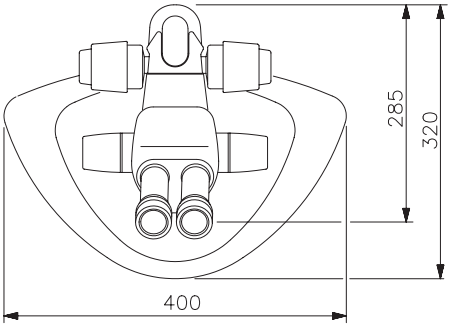




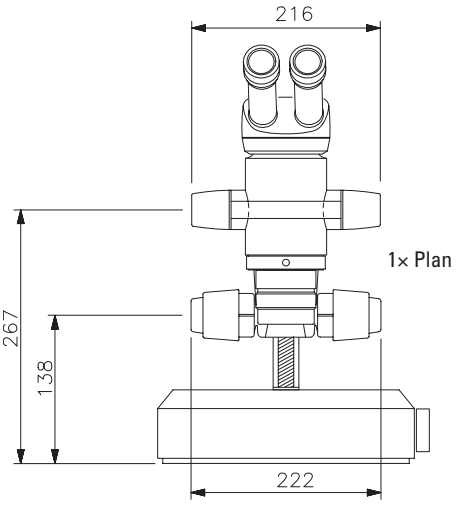
Dimensions of Leica MZ12$_5$ with incident-light stand

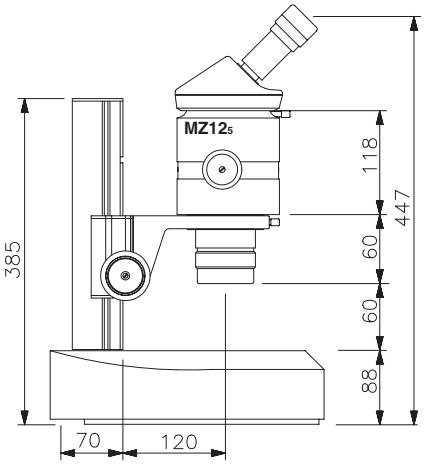


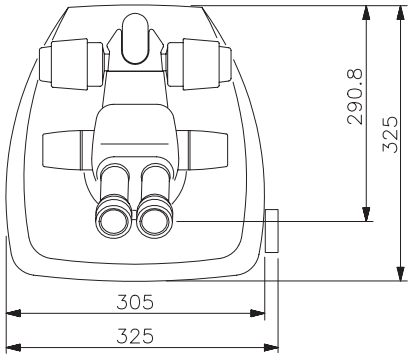




Dimensions of Leica MZ12$_5$ with transmitted-light stand HL

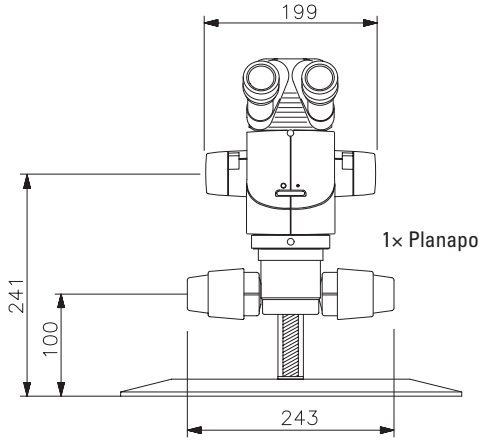


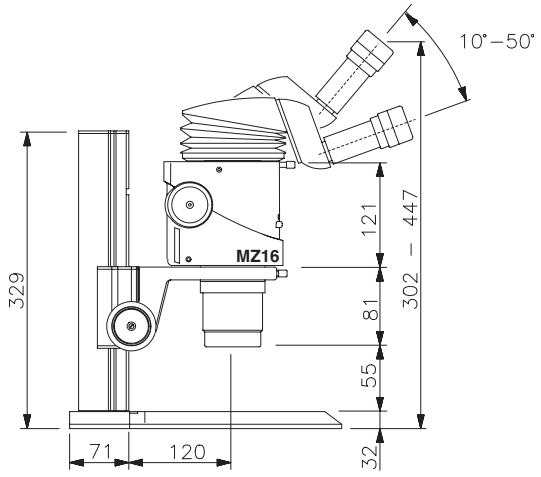


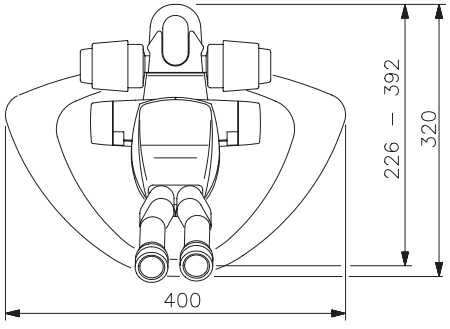


Dimensions in mm

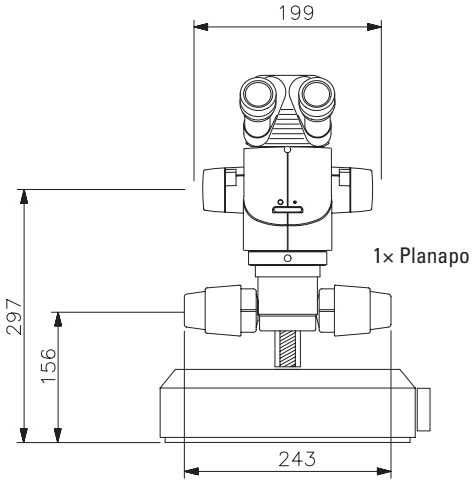
Dimensions of Leica MZ16 with incident-light stand

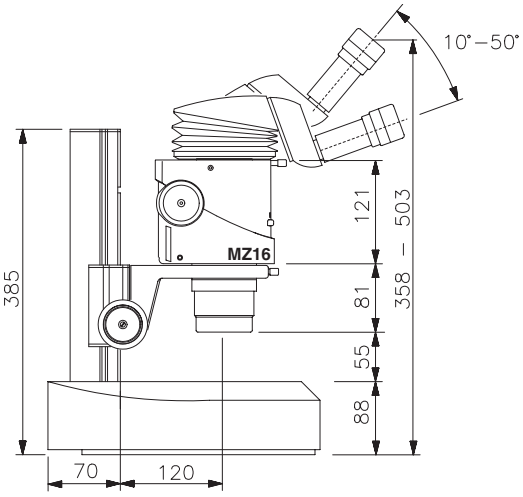


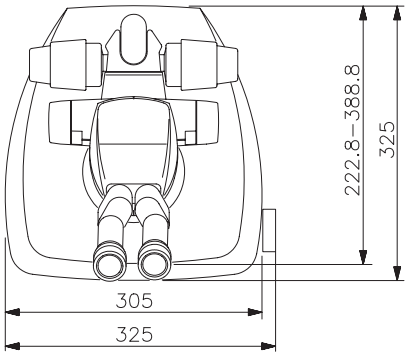




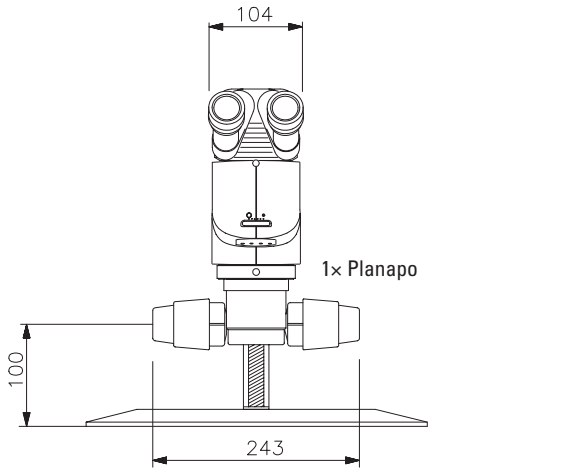
Dimensions of Leica MZ16 with transmitted-light stand

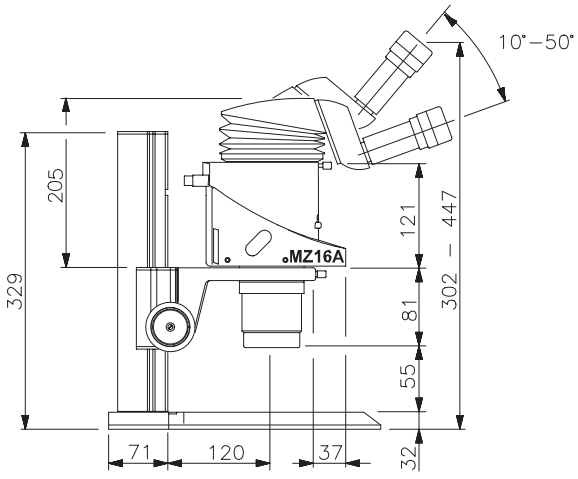


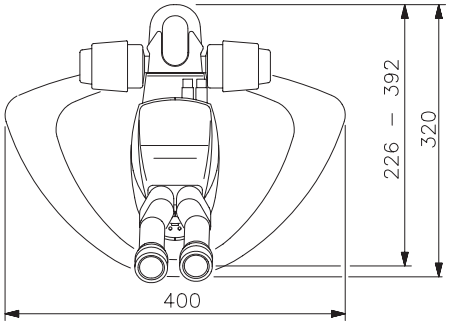




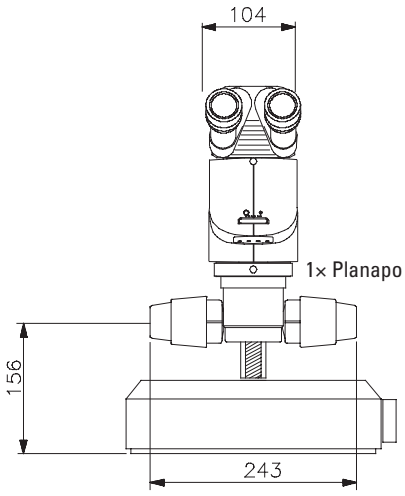
Dimensions of Leica MZ16 A with incident-light stand

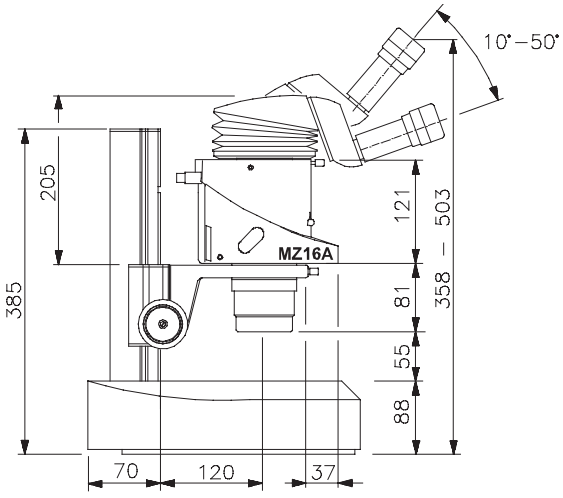


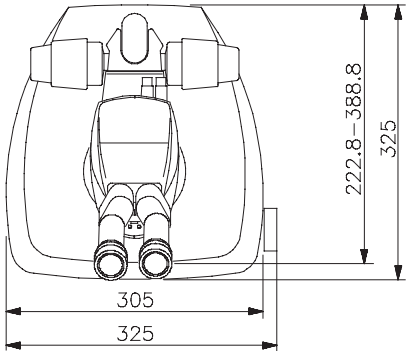




Dimensions of Leica MZ16 A with transmitted-light stand







Dimensions in mm

Information material

Stereomicroscope Leica MZ16 & MZ16 A	M1-116-0
Stereomicroscope Leica MZ12$_5$	M1-125-0
Stereomicroscope Leica MZ9$_5$	M1-195-0
Stereomicroscope Leica MZ7$_5$	M1-175-0
Stereomicroscope Leica MS5, MZ6	M1-141-0
Fluorescence stereomicroscope Leica MZ FLIII	M1-160-0
Leica Fluo Combi™	M1-166-1
Leica IC A video module for	
Leica M stereomicroscopes	M1-393-1
Leica ICC A video module for	
Leica microscopes	M1-393-2
Leica MPS30 photoautomat	M1-330-0
Leica MPS60 photoautomat	M1-360-0
Leica ErgoModules®	M1-215-2
Leica heating stage	M1-227-0
Leica L2 cold-light source	M1-288-0
Leica L5 FL cold-light fluorescence system	M1-205-1
Leica StereoZoom® Greenough Stereomicroscopes	M1-188-0
Leica M420 macroscope	M1-421-0
Leica colposcope	M1-280-0
Customers' magazine "Resolution"	

Please also visit our homepage:
www.stereomicroscopy.com
There you will find the latest information and updates as well as numerous examples of practical application for our stereomicroscopes in industry and life science.

Standard delivery

Optics carrier, microscope carrier

10 445 613 Leica MS5 optics carrier with five-step magnification changer
10 445 614 Leica MZ6 optics carrier with 6:1 zoom magnification changer
10 446 371 $MZ7_5$ optics carrier with 7.9:1 zoom magnification changer
10 446 372 $MZ9_5$ optics carrier with 9.5:1 zoom magnification changer
10 446 370 $MZ12_5$ optics carrier with 12.5:1 zoom magnification changer
10 447 102 Leica MZ16 with 16:1 zoom
10 447 103 Leica MZ16 A with 16:1 motor-zoom
10 447 163 Hand switch for MZ16 A
10 446 182 Foot switch for MZ16 A
10 447 049 Cable
For details on MZ16, MZ16 A see brochure M1-116-1.
10 445 618 Microscope carrier AX for MS5, MZ6, $MZ7_5$, $MZ9_5$ with switchover to axial photography, to focusing drive for incident-light and transmitted-light bases
10 445 617 Microscope carriers MS5, MZ6, $MZ7_5$, $MZ9_5$, $MZ12_5$ for focusing drive
10 447 114 Microscope carriers MZ16, MZ16 A for focusing drive
10 447 062 Microscope carrier AX for $MZ12_5$, MZ16, MZ16 A with switchover to axial photography

Objectives MS5, MZ6, $MZ7_5$, $MZ9_5$

10 447 148 Ergo objective 0.4×–0.63×, achromat
10 446 172 Intermediate ring for $MZ12_5$/MZ16 objectives on MS5/MZ6/$MZ7_5$
10 446 275 Planachromatic objective 1× for MS5/MZ6/$MZ7_5$/$MZ9_5$
10 422 564 Achromatic objective 0.32×
10 422 563 Achromatic objective 0.5×
10 445 201 Achromatic objective 0.63×
10 473 832 Achromatic objective 0.8×
10 411 589 Achromatic objective 1×
10 422 562 Achromatic objective 1.5×
10 422 561 Achromatic objective 2×
10 445 156 Attachment for vertical and oblique observation® to objective achromat 1×*

* **Order**
– for $MZ7_5$ intermediate ring 10 446 300 (2×)
– for $MZ9_5$ intermediate ring 10 446 300
– for $MZ12_5$ and MZ16 intermediate rings 10 446 300 and 10 446 393

Objectives for $MZ9_5$/$MZ12_5$/MZ16/MZ16 A and vertical illuminator

10 445 819 Planachromatic objective 1×
10 446 157 Planachromatic objective 0.5×
10 447 075 Planachromatic objective 0.8×
10 447 157 Planachromatic objective 1×
10 446 236 Planapochromatic objective 0.63×
10 447 050 Planapochromatic objective 1.6×
10 447 101 Planapochromatic objective 2×
10 447 107 Objective turret MZ16/MZ16 A
10 447 060 Attachment to objective turret MZ16/MZ16 A
10 411 597* Achromatic objective f= 100mm
10 441 787* Achromat objective f= 150mm
10 431 692* Achromat objective f= 175mm
10 382 162* Achromat objective f= 200mm
10 457 297 Achromat objective f= 225mm
10 407 743 Achromat objective f= 250mm
10 457 298 Achromat objective f= 275mm
10 382 168 Achromat objective f= 300mm
10 431 693 Achromat objective f= 350mm
10 382 172 Achromat objective f= 400mm
* Objectives for vertical illuminator

Tubes, ErgoModules®

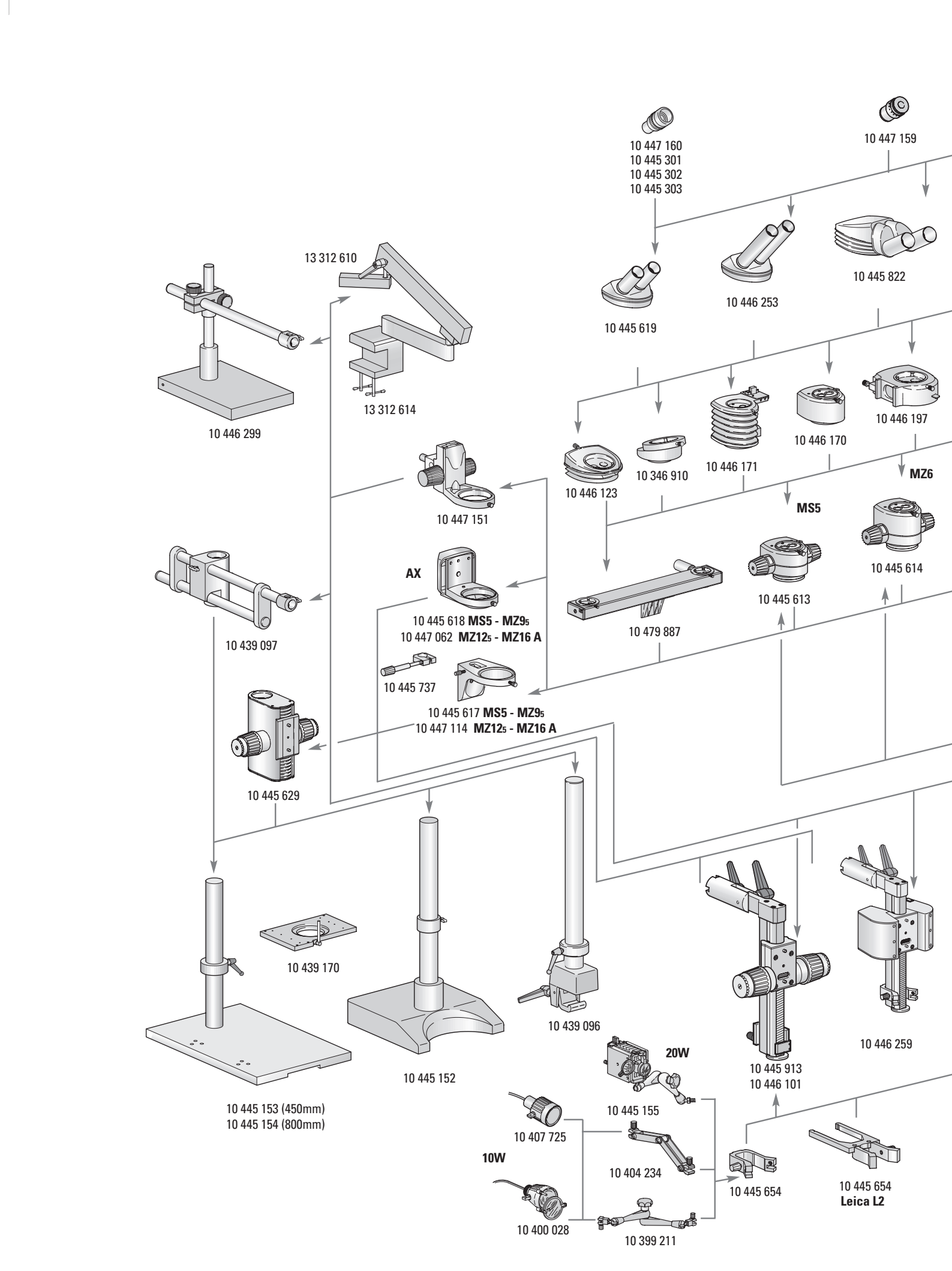
10 445 619 Inclined binocular tube 45°
10 446 253 ErgoTube® 45°
10 429 781 Inclined binocular tube, low
10 429 783 Straight binocular tube
10 446 123 ErgoWedge® 5°–25°
10 446 171 ErgoModule® 30mm–120mm
10 446 170 ErgoModule® 50mm
10 346 910 ErgoWedge® ±15
10 445 822 ErgoTube with variable viewing angle 10°–50°
10 479 887 Discussion tube with carrier
10 446 193 Drawing tube
10 445 927 Double-iris diaphragm

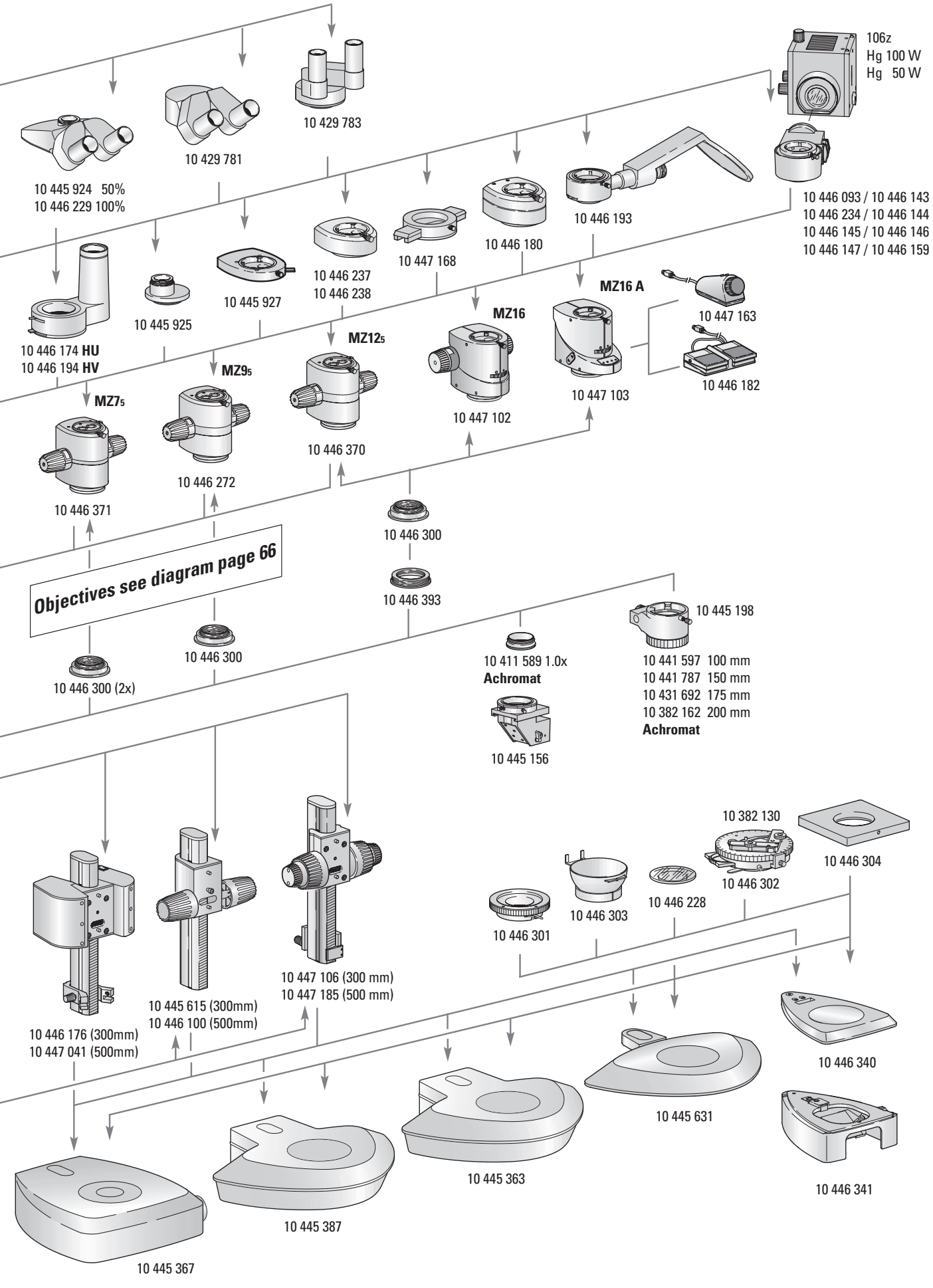
Eyepieces

10 447 159 Wide-field eyepiece 10×/21, adjustable, with eyecup, inclined
10 447 160 Wide-field eyepiece for spectacle wearers 10×/21B, distortion-free, adjustable, lead-free, with eyecup and soft eyecup
10 445 302 Wide-field eyepieces for spectacle wearers 16×/14B, distortion-free, adjustable, with eyecup
10 445 302 Wide-angle eyepieces for spectacle wearers 25×/9.5B, distortion-free, adjustable, with eyecup
10 445 303 Wide-field eyepieces for spectacle wearers 40×/6B, distortion-free, adjustable, with eyecup

Incident-light stands/Components

10 446 340 Incident-light base with black/white stage plate
10 446 341* Transmitted-light base with reflector for 10 446 340
*Cold-light source with fibre-optic light guide necessary
10 445 615 Focusing drive with side-faced column 300mm for incident and transmitted-light bases
10 446 100 Focusing drive with side-faced column 500mm for incident and transmitted-light bases
10 447 106 Focusing drive, coarse/fine, with side-faced column 300mm for incident and transmitted-light stands
10 447 185 Focusing drive, coarse/fine, with side-faced column 500mm for incident and transmitted-light stands
10 446 176 Motor-focus drive with column 300mm and supply unit for incident and transmitted-light bases
10 447 041 Motor-focus drive with column 500mm and supply unit for incident and transmitted-light bases
10 446 181 Motor-focus manual control
10 446 182 Motor-focus foot switch
10 445 152 Base with column 550/50 mm
10 439 096 Stage clamp with column 550/50 mm
10 439 097 Horizontal arm with clamping block
10 445 913 Focusing drive, coarse/fine, with tilting column for swinging arm/table-clamp stands
10 446 259 Motor-focus drive with inclinable column and supply unit for swinging-arm/table-clamp stand
10 446 101 Focusing drive with inclinable column for swinging-arm/table-clamp stands
10 446 299 Swinging-arm stand ESD
10 447 151 Inclinable focusing drive
13 312 610 Flex-arm
13 312 614 Clamp for flex-arm
10 445 153 Baseplate with column 450/50mm
10 445 154 Baseplate with column 800/50mm
10 445 629 Drive housing with coarse/fine drive for discussion tube or microscope carrier


10 447 160
10 445 301
10 445 302
10 445 303
10 447 159
10 445 619
10 446 253
10 445 822
13 312 610
13 312 614
10 446 299
10 446 123
10 346 910
10 446 171
10 446 170
10 446 197
MZ6
MS5
10 447 151
AX
10 445 618 MS5 - MZ9₅
10 447 062 MZ12₅ - MZ16 A
10 445 737
10 445 617 MS5 - MZ9₅
10 447 114 MZ12₅ - MZ16 A
10 439 097
10 479 887
10 445 613
10 445 614
10 445 629
10 439 170
10 445 152
10 439 096
10 446 259
10 445 913
10 446 101
20W
10 445 155
10 407 725
10 404 234
10W
10 400 028
10 399 211
10 445 654
10 445 654
Leica L2
10 445 153 (450mm)
10 445 154 (800mm)


106z
Hg 100 W
Hg 50 W
10 429 783
10 429 781
10 445 924 50%
10 446 229 100%
10 446 093 / 10 446 143
10 446 234 / 10 446 144
10 446 145 / 10 446 146
10 446 147 / 10 446 159
10 446 193
10 446 180
10 447 168
10 446 237
10 446 238
10 445 927
10 445 925
10 446 174 HU
10 446 194 HV
MZ16 A
10 447 163
MZ16
10 446 182
10 447 103
MZ12₅
MZ9₅
MZ7₅
10 447 102
10 446 370
10 446 272
10 446 371
10 446 300
10 446 393
Objectives see diagram page 66
10 446 300 (2x)
10 445 198
10 411 589 1.0x
Achromat
10 441 597 100 mm
10 441 787 150 mm
10 431 692 175 mm
10 382 162 200 mm
Achromat
10 445 156
10 382 130
10 446 304
10 446 302
10 446 303
10 446 228
10 446 301
10 446 176 (300mm)
10 447 041 (500mm)
10 445 615 (300mm)
10 446 100 (500mm)
10 447 106 (300 mm)
10 447 185 (500 mm)
10 446 340
10 445 631
10 445 363
10 446 341
10 445 387
10 445 367

Incident-light stands/Components

10 445 367 Transmitted-light base HL for highest requirements in observation and documentation. With adjustable mirror for vertical and oblique illumination..
10 446 184 Additional condenser for transmitted-light base HL, for optimizing the illumination at magnifications >100×.
10 445 387 Transmitted-light base bright field 20W, with tiltable reflector for vertical and oblique illumination, with clear glass stage plate, 2 halogen bulbs 6V/20W and built-in regulating transformer 0V–6V 40VA, 100V–120V/200V–240V
10 445 363 Transmitted-light base bright/dark field with clear glass stage plate and socket for a cold light source
10 445 615 Focusing drive with side-faced column 300mm, for incident and transmitted-light bases
10 447 106 Focusing drive, coarse/fine, with side-faced column 300mm for incident and transmitted-light bases
10 446 176 Motor-focus drive with column 300mm and supply unit for incident and transmitted-light bases

Illuminators

10 400 028 Lamp 6V/10W with heat-absorbing filter and 2 halogen bulbs 6V/10W
10 399 201 Filterholder, ∅50mm, attachable, for lamp 6V/10W
10 411 596 KG1-heat-absorbing filter, ∅50mm
10 407 725 Mains lamp housing
10 393 811 Bulb 220V/25W
10 393 902 Bulb 115V/25W
10 404 234 Arm for lampholder
10 399 211 Arm, clampable, for lampholder
10 445 654 Clamp for lampholder on focusing drive
10 404 242 Adapter for achromat
10 404 243 Adapter ∅25mm for lamp 6V/10W and cast foot
10 399 202 Cast foot for incident lamps
10 445 155 Lamp 6V/20W with built-in heat-absorbing filter and large lampholders with threaded connection, diffusing filter and 2 halogen bulbs 6V/20W
10 395 195 Filterholder, ∅32mm, attachable, for lamp 6V/20W
10 339 951 Diffusing filter, ∅32mm
10 395 200 Adapter for cast foot, for lamp 6V/20W

10 446 180 Coaxial incident-light housing for fiber-optic light*
* Complete the illuminations 10 446 180 and 10 445 198 with a fiber-optic light guide (active f=10 mm, end tube f=13 mm) and a light source.
For MZ7$_5$/MZ9$_5$ order intermediate ring 10 446 300
10 445 352 Quarter-wave plate for achromats, for use with microscope carrier AX with coaxial incident-light
10 367 929 Analyzer in rotatable mount for planachromat and planapochromat, for use with microscope carrier AX with coaxial incident-light
10 445 198 Vertical incident-light housing for fibre-optic light guides and achromats MZ12$_5$. Order the following:
– for MZ7$_5$ intermediate ring 10 446 300 (2×)
– for MZ9$_5$ intermediate ring 10 446 300
– for MZ12$_5$ and intermediate rings 10 446 300 and 10 446 393

10 445 737 Clamp for fixing the fibre-optic light guide to the microscope carrier

10 445 314 Step transformer 4/5/6V, 10VA, prim. 115V/230V, with power cable
10 445 312 Regulating transformer 0–7 V/40 VA, 100–120 V/200–240 V
10 280 636 Power cable, 2m, 3-pole
10 445 661 Power cable, 2 m, with USA mains plug
10 445 662 Power cable, 2m, with EURO mains plug (with earthing contact)
10 445 663 Mains cable, 2m, with UK standard mains plug
10 370 881 Halogen bulb 6V/10W
10 362 658 Halogen bulb 6V/20W

Fluorescence module

Please order a lamp housing 105Z or 106Z
10 446 093 Fluorescence module GFP
10 446 143 Fluorescence module GFP Plus
10 446 234 Fluorescence module GFP plants
10 446 144 Fluorescence module UV
10 446 145 Fluorescence module violet
10 446 146 Fluorescence module blue
10 446 147 Fluorescence module green
10 446 159 Fluorescence module without filter set
10 446 148 GFP filter set for fluorescence module
10 446 149 GFP plus filter set for fluorescence module
10 446 235 GFP plant filter set for fluorescence module
10 446 150 UV filter set for fluorescence module
10 446 151 Violet filter set for fluorescence module
10 446 152 Blue filter set for fluorescence module
10 446 153 Green filter set for fluorescence module
10 446 154 Glare protection
10 399 211 Arm for glare protection
10 445 654 Clamp on side-faced column

Stages

10 446 301 Gliding stage ∅120 mm
10 446 304 Universal carrier ∅120 mm
10 446 303 Cup stage ∅120 mm
10 439 169 Stage carrier with magnetic linkage for stages, ∅80mm
10 439 170 Stage carrier with magnetic linkage for cross stage*
* Available on request

For details see brochure M1-227-0
10 447 164 Leica MATS thermo-stage Type A with control device for transmitted-light base HL
10 447 165 Leica MATS thermo-stage Type B with control device for transmitted-light base HF/DF

Polarization

10 446 302 Rotatable polarization stage ∅120 mm with polarizer and glass stage plate, clear
10 382 130 Attachable mechanical stage for rotatable polarization stage
10 361 719 Sensitive-tint plate for rotatable polarization stage
10 315 306 Analyzer in rotatable mount for achromat
10 367 929 Analyzer in rotatable mount for planachromat and planapochromat
10 446 228 Glass stage plate with polarizer ∅120 mm for transmitted-light stands

Measuring

10 376 119 Graticule with scale 12 mm:120 and crosshair
10 394 771 Graticule with scale 5 mm:100
10 376 122 Graticule with grid 100×1 mm^2
10 376 120 Crosshair graticule
10 398 408 Graticule, unlabeled, with mount
10 310 345 Stage micrometer, 50-mm scale with 0.1mm and 0.01-mm graduation
10 447 182 Graticule MZ16 A

Dust covers

10 447 039 Dust cover, antistatic
10 362 677 Dust cover for photo equipment and for universal stand (800 mm column)
10 126 269 Dust cover for large swinging arm and table-clamp stand
10 362 678 Dust cover for discussion stereomicroscope, swinging arm and universal stand (450 mm column)

Video systems

10 446 237 Leica IC A video module with integrated CCD and camera control, PAL
10 446 238 Leica IC A video module with integrated CCD and camera control, NTSC

Standard delivery

L2

10 446 385 Leica L2 cold-light source
10 447 015 Charging set for Leica L2
10 446 376 L2 Adapter for focusing drive 300m
10 446 392 Universal light guide
Detailed information in brochure M1-288-0

LED1000

For details see brochure Leica LED1000
30 211 001 Control unit
30 211 002 Supply unit
30 220 001 LED spot
30 221 005 Gooseneck for spot 85mm
30 221 006 Gooseneck for spot 200mm
30 221 007 Gooseneck for spot 300mm
30 210 002 LED ring lamp
30 123 101 LED ring lamp adapter for objective MS5/MZ6 (achr. obj. 1×/0.8×/0.63×/0.32×)
30 123 102 LED ring lamp adapter for objective MS5/MZ6 (achr. obj. 1.5×)
30 123 103 LED ring lamp adapter for objective MS5/MZ6 (achr. obj. 2×)

CLS

For details see brochure Leica CLS line cold-light sources
30 111 150 CLS 50X MED (230V–240V)
30 111 250 CLS100X MED(230V–240V)
30 111 350 CLS150X MED(230V–240V)
30 150 111 Flex light guide 1-arm 3mm/600mm
30 150 211 Flex light guide 2-arm 3mm/600mm
30 130 011 Gooseneck 1-arm 4.5mm/600mm
30 130 021 Gooseneck 2-arm 3mm/500mm
30 130 422 Gooseneck 2-arm 4.5mm/600mm ESD

30 120 101 Ring lamp 6-segment
30 123 101 Ring lamp adapter for objectives 0.32×–1×)
30 123 102 Ring lamp adapter for objective 1.5×
30 123 103 Ring lamp adapter for objective 2×

KL1500/KL2500

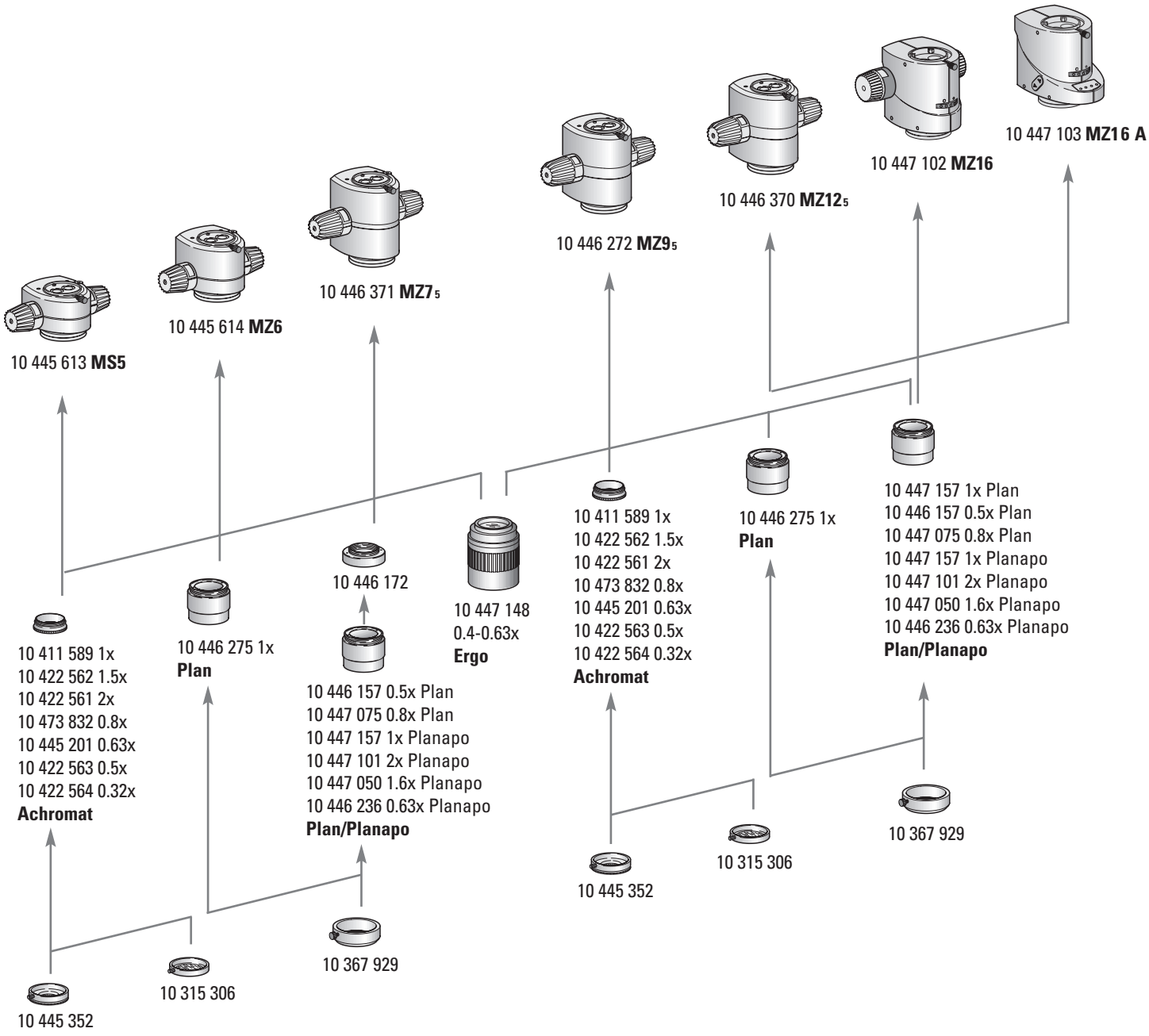
For details see brochure Leica KL1500/KL2500 cold-light sources
31 150 200 Cold light source KL1500 LCD, 230V
31 250 200 Cold light source KL2500 LCD, 230V
31 154 101 Gooseneck, 1-arm, 600mm
31 154 202 Gooseneck, 2-arm, 600mm
31 155 101 Flexible light guide 1-arm d3/1000mm for KL1500
31 250 101 Flexible light guide 1-arm d12/1000mm for KL2500
31 157 401 4-point ring lamp, ∅ 30mm

L5 FL

10 446 422 Leica L5 FL Fluorescence system blue (Ex.450/64nm / Em. 550/54nm), 230V
10 446 423 Leica L5 FL Fluorescence system blue (Ex.450/64nm / Em. 550/54nm), 120V
10 446 429 Leica L5 FL Fluorescence system green (Ex.534/40nm / Em. 622/64nm), 230V
10 446 430 Leica L5 FL Fluorescence system green (Ex.534/40nm / Em. 622/64nm), 120V

The delivery includes: Cold-light source Leica L5 FL 120V or 230V, fibre-optic light guide with illumination optics, lampholder and arm, filterset green or blue (excitation and blocking filter), daylight filter, filter-slide housing

Objective combinations



Objective combinations

	Article no.	MS5	MZ6	MZ7$_5$	MZ9$_5$	MZ12$_5$	MZ16/MZ16 A
Achromat							
Achromat 1×	10 411 589	C	C	C	C		
Achromat 1.5×	10 422 562	C	C	C	C		
Achromat 2×	10 422 561	C	C	C	C		
Achromat 0.8×	10 473 832	C	C	C	C		
Achromat 0.63×	10 445 201	C	C	C	C		
Achromat 0.5×	10 422 563	C	C	C	C		
Achromat 0.32×	10 422 564	C	C	C	C		
Ergo objective 0.4× – 0.63×	10 447 148	C	C	C	C		
Planachromatic							
Planachromatic 1×	10 446 275	C	C	C	C		
Planachromatic 1× MZ12$_5$/MZ16	10 445 819	CA (10 446 172) M	CA (10 446 172) M	CA (10 446 172) M	C*M	C	C
Planachromatic 0.5× MZ12$_5$/MZ16	10 446 157	CA (10 446 172) M	CA (10 446 172) M	CA (10 446 172) M	C*M	C	C
Planachromatic 0.8×	10 447 075	CA (10 446 172) M	CA (10 446 172) M	CA (10 446 172) M	C*M	C	C
Planapochromatic							
Planapochromatic 1× MZ12$_5$/MZ16	10 447 157	CA (10 446 172) M	CA (10 446 172) M	CA (10 446 172) M	C*M	C	C
Planapochromatic 1.6× MZ12$_5$/MZ16	10 472 650	CA (10 446 172) M	CA (10 446 172) M	CA (10 446 172) M	C*M	C	C
Planapochromatic 0.63× MZ12$_5$/MZ16	10 446 236	CA (10 446 172) M	CA (10 446 172) M	CA (10 446 172) M	C*M	C	C
Planapochromatic 2× MZ12$_5$/MZ16	10 447 101	CA (10 446 172) M	CA (10 446 172) M	CA (10 446 172) M	C*M	C	C
Accessories							
Coaxial incident-light	10 446 180	C	C	O (10 446 300)	O (10 446 300)	C	C
Microscope carrier AX MS5, MZ6, MZ7$_5$, MZ9$_5$	10 445 618	C	C	C	C		
Microscope carrier AX MZ12$_5$, MZ16, MZ16 A	10 447 062					C	C
Vertical illuminator	10 445 198	C	C	CA 2× (10 446 300)	CA (10 446 300)	CA (10 446 300) + (10 446 393)	
Attachment for vertical and oblique observation	0 445 156	C	C	CA 2× (10 446 300)	CA (10 446 300)	CA (10 446 300) + (10 446 393)	CA (10 446 300) + (10 446 3931)

C Compatible

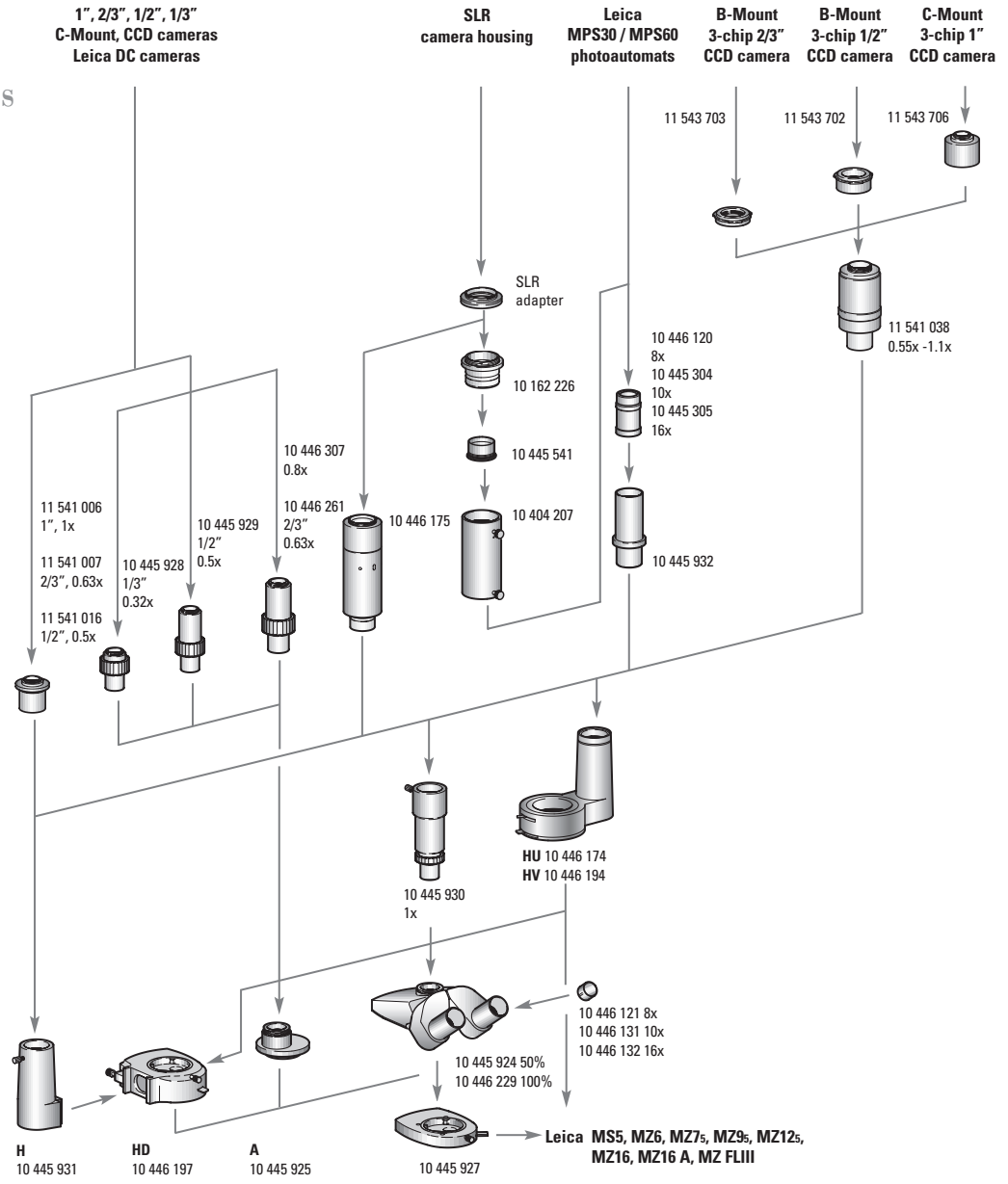
CA Compatible if used with intermediate ring (order separately)

O Intermediate ring is recommended

M Magnification increased by factor 1.25× or higher

* Remove intermediate ring (10 446 393); already included with MZ9$_5$.

Video/phototubes



Video/phototubes

10 445 924 Trinocular video/phototube 50%
10 446 229 Trinocular video/phototube 100%
10 446 197 Video/photo tube HD-50
10 445 925 Video/photo tube A
10 445 174 Video/phototube HU/37mm with built-in double-iris diaphragm
10 446 194 Video/photo tube HV/37mm with built-in double-iris diaphragm

Video/photo objectives

10 445 930 Video/photo objective 1× for video/photo tubes
10 445 931 Video/photo objective H for video/photo tube HD
Video objectives
10 445 928 Video objective 0.32 × with C-mount for 1/3" CCD cameras for video/photo tubes
10 445 929 Video objective 0.5 × with C-mount for 1/2" CCD cameras for video/photo tubes
10 446 261 Video objective 0.63× with C-mount for 2/3" CCD cameras for video/photo tubes
10 446 307 Video objective 0.8× with C-mount for CCD cameras for video/photo tubes

Eyepiece tube

10 445 932 Eyepiece tube for video/photo objectives and video/phototubes (external diameter 37mm)

Focusing and framing graticule for adjustable eyepieces

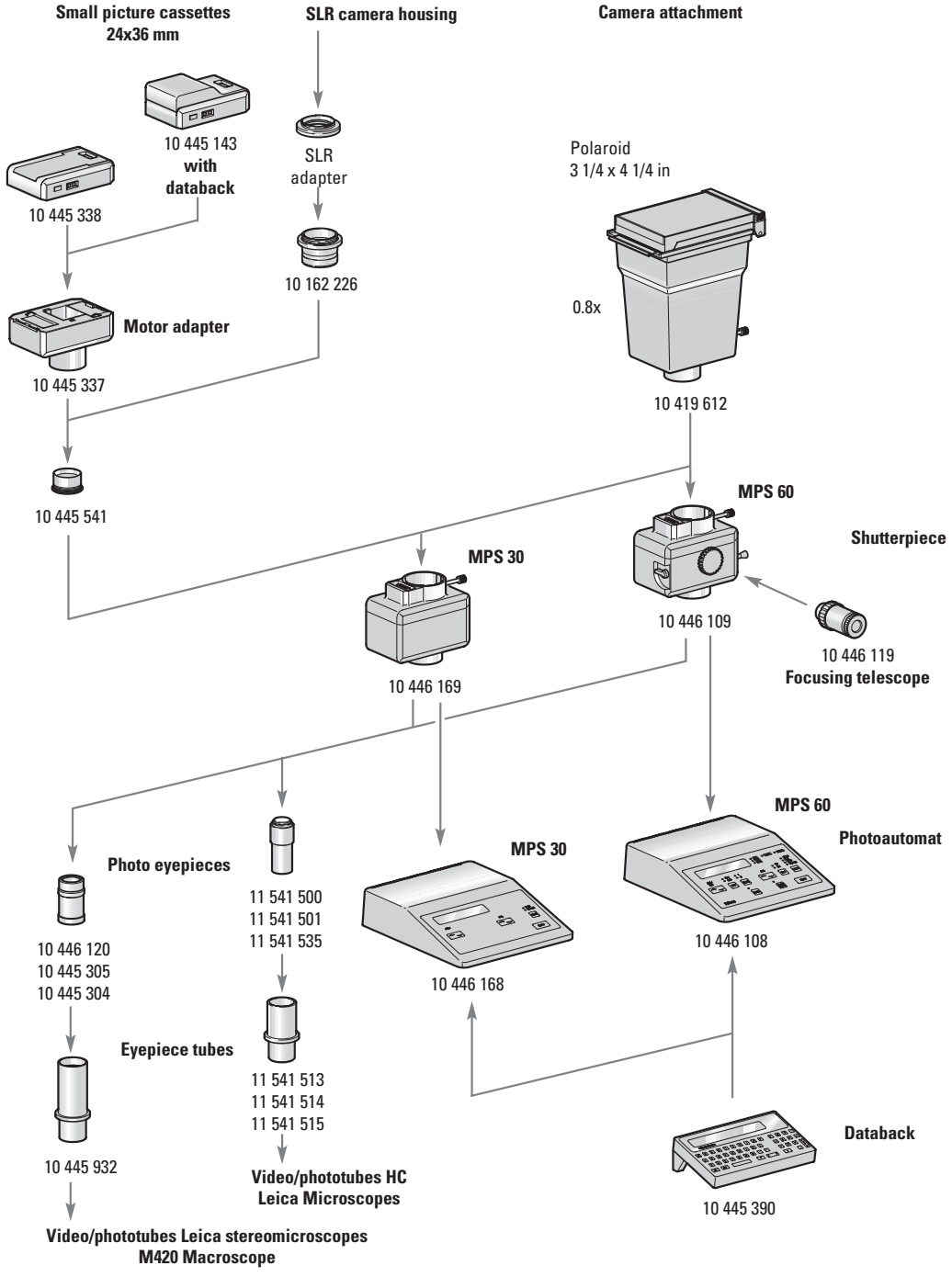
10 446 121 Focusing and framing graticule MPS, 8×
10 446 131 Focusing and framing graticule MPS, 10×
10 446 132 Focusing and framing graticule MPS, 16×

Accessories for MPS and SLR cameras

10 446 120 Photo eyepiece 8×
10 445 304 Photo eyepiece 10×
10 445 305 Photo eyepiece 16×

10 404 207 Adapter 40mm for SLR camera housing
10 445 541 Camera objective 0.32×
10 162 226 Connecting sleeve for SLR camera housing
Matching SLR camera adapter available upon request.
10 446 175 * SLR projection lens 2.5×, with T2 thread, for use with single-lens reflex cameras on video/phototubes
* For the camera housing the respective camera adapter is additionally required
10 446 247 Ricoh SLR for microscopy (XR-X 3000 Data)
10 446 256 Adapter T2, Ricoh/Pentax

MPS photoautomats



MPS30

10 446 169 Leica MPS30 camera body for integrated metering for photoautomat MPS30

10 446 168 Leica MPS30 photoautomat, 110–240V, with connection cable, dust cover

MPS60

10 446 108 Leica MPS60 photoautomat, 110–240V, with connection cable and dust cover

10 446 109 Leica MPS60 camera body for integrated and spot metering for MPS60 photoautomat

10 446 119 Focusing telescope for MPS60, 1% spot

Cassettes

10 445 337 Motor adapter

10 445 541 Camera objective 0.32×, for photo eyepieces

10 445 338 Interchangeable cassette 24×36mm

10 445 143 Interchangeable cassette 24×36mm with databack

10 445 390 Input device for interchangeable cassette 24×36mm with databack

10 419 612 Camera attachment 0.8× for MPS, for Polaroid Packfilm $3^{1}/_{4}$×$4^{1}/_{4}$ in, with camera objective 0.8×

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