Leica M-Series

Stereomicroscopes

A completely modular system for all applications
No.1 in stereomicroscopy
Thank you for your interest. Leica Microsystems is proud to present the Leica M-series. The success of a stereomicroscope in use depends on the versatility of its accessories. For this reason, Leica M-series stereomicroscopes, from the routine to the high-performance models, are constructed on a modular principle. They can be adapted to individual user requirements at any time.

This brochure portrays the Leica MS5, MZ6, MZ7s, MZ9s, MZ12s, MZ16 and MZ16 A stereomicroscopes in many configurations, along with the available accessories. There is a comprehensive assembly diagram to help you configure the outfit that best suits your needs. If you have questions, or require a demonstration, please contact your local Leica dealer or Leica Microsystems directly. Leica’s homepage www.leica-microsystems.com features valuable information on the products and services offered by Leica Microsystems and the contact information of your local dealer. We are glad to be of service for all of your imaging needs. Providing excellent customer service is a priority for us; not only before the sale, but afterward as well.

Leica Microsystems (Switzerland) Ltd.
Stereo & Macrooscope Systems
www.stereomicroscopy.com
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The requirements

You expect a high-performance stereomicroscope to produce a perfect image, offer versatility and be comfortable to use. The three-dimensionality, depth of field, contrast, resolution and color fidelity of the image must be optimal. In addition, ergonomic requirements must be met and work must be largely fatigue-free. Motorized and software-controlled stereomicroscopes are not only particularly ergonomical and efficient in their operation, they also allow for automating entire sequences of operations. In addition, a rich accessory program must allow for a practice-oriented workstation layout, including digital image recording systems as well as image processing and analysis software, and expand the benefit of the stereomicroscope.
From routine to high performance
The Leica M-series offers an extensive stereomicroscope program for all applications, from quality testing during manufacturing and assembly, OEM integration and lab applications for students up to demanding tasks in research and development.

Ergonomics
With the Leica M-series you have the largest range of binocular tubes on the market at your disposal. Individual factors such as one’s individual build, height of the equipment and working methods present no problem for you. Distortion-free, widefield eyepieces permit observation either with or without eyeglasses. Additional ergonomic advantages include the low-positioned focus knobs for manual focusing and optional motorized focusing.

Fully apochromatic motorized models
As the leading manufacturer of high-quality stereomicroscopes, Leica Microsystems is introducing the first fully apochromatic and motorized 16:1-zoom models to the market. With the largest zoom range and the highest resolution of all stereomicroscopes currently available, these models allow for detecting structures up to a size of 0.6 micron. Thanks to the motorized and automated functions, typical sequences of operations and experiments can be reproduced with the control of software.

Patented ESD protection
The optics carriers of the Leica M-series, the binocular tube, ErgoTube®, ErgoWedge® 5°–25°, the ESD swing-arm stand and the cold-light sources Leica L2 and CLS consist of ESD-discharging material (surface resistance <10¹¹ Ohm/square, discharge time <2 seconds, 1000V to 100V).

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

The CMO (Common Main Objective) optical system consists of two parallel beam paths and one common main objective. This elaborate design guarantees fatigue-free viewing and constant image sharpness during magnification changes.

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

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.

Digital imaging and analysis
From stereomicroscope to digital camera, including application software, Leica Microsystems offers customer-specific complete solutions for professional image acquisition, archiving, analysis, processing, presentation or print. A series of professional FireWire camera systems for PC and Mac are available as well as image management and analysis programs.
Performance Features

- Seven different optics carriers are available upon request for different requirements: From routine instrument with five-stage magnification changer to the high-performance instrument with motor zoom 16:1 for research tasks
- Two optics carriers for fluorescence with manual or motorized 16:1 zoom
- Motorized models with computer connection and software control
- Zoom magnification changer, manual or motorized, with engageable ratchet positions for repeating certain magnifications
- Parfocal optical system: The focus remains constant when the magnification is changed.
- Impressive 3D effect, great depth of field, large object fields, high-resolution, high contrast
- Achromatic, planachromatic and plan-apochromatic objectives of your choice
- Widest choice of ergonomic accessories on the market: ErgoTube®, ErgoModule® and motorized focus
- Widefield eyepieces for use with or without eyeglasses
- Coarse/fine focus drive, manual or motorized
- Various possibilities for fitting to existing stands and for OEM uses
- Conveniently placed control knobs
- Cameras for digital imaging and video
- Software for image management and analysis
- All stereomicroscopes have ESD-protection material
- Innovative stand program, particularly a high-performance transmitted-light stand with Rottermann® contrast technology and ergonomic swing-arm stands
The modular design allows you to customize your application-compliant equipment. Depending upon the requirements of the workplace, you can select among the following components:

**Optics carriers**
- MS5, MZ6, MZ7s, MZ9s, MZ12s, MZ16 or MZ16 A

The fluorescence stereomicroscopes Leica MZ16 F and MZ16 FA are described in separate brochures.

**Microscope carriers**
- Microscope carrier for stereoscopic observation
- Microscope carrier AX for stereoscopic and axial observation

**Focus drive**
For incident light and transmitted light stands:
- Focus drive (coarse) and focus drive (coarse/fine) with 300mm and 500mm columns
- Motor focus system with 300mm and 500mm columns

For swing arm stands and OEM:
- Inclined focus drive
- Focus drive (coarse) and focus drive (coarse/fine) with inclinable column
- Motor focus system with inclinable column

For universal stands and columns, Ø 50mm:
- Drive housing with coarse/fine focus drive

**Binocular tubes**
- Inclined binocular tube 45°
- ErgoTube® 45°
- Apochromatic ErgoTube® 10°–50°
- Inclined binocular tube, low
- Straight binocular tube
- Inclined trinocular tube, low
- Trinocular tube, ultra-low

**ErgoModules®**
- ErgoWedge® 15°
- ErgoWedge® 5°–25°
- ErgoModule® 50mm
- ErgoModule® 30mm–120mm

**Eyepieces**
- Widefield eyepieces for eyeglass wearers, 10×, 16×, 25×, 40×, distortion-free

**Interchangeable objectives**
- Achromats, reducing to 2× magnifying
- Ergo objective 0.4× – 0.63×
- Planachromats 0.5× reducing to 1× magnifying
- Planapochromats 0.63× reducing to 2× magnifying
- Achromats with focal distances of 100mm to 400mm

**Stands**
- Incident light stand
- Swing arm stand, different designs and ESD version
- Universal stand
- Transmitted light stands: Brightfield, bright/darkfield, high-performance, and affordable sub-base

**Stages**
- A variety of stages available including the Leica MATS thermocontrol stage

**Illumination**
- Inclined incident light illumination
- Coaxial illuminator
- Vertical illuminator
- Cold light sources with fiber-optic light guides
- LED illumination
- Stereo-fluorescence module

**Choice of accessories**
- Video/phototubes, different models
- Digital camera systems
- Integrated digital camera
- Leica 3D system
- Control, image editing and analysis software
- Accessories for commercially available TV, video, film, or SLR systems
- 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 offers the maximum possible flexibility to fulfill user requirements. Leica’s modular components can be combined according to your wishes. Contact us and we will gladly help you assemble the ideal outfit for your specific investigation tasks, training and documentation.

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

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

* Order numbers for optics carriers
Leica MZ7s with zoom 7.9:1
Provides an infinitely variable choice of magnification from 6.3× to 50× with 1× objective and 10× eyepieces. 8 zoom stops are engageable at 0.8, 1, 1.25, 1.6, 2, 2.5, 3.2, 4.

Leica MZ9s with zoom 9.5:1
Provides an infinitely variable choice of magnification from 6.3× to 60× with 1× objective and 10× eyepieces. 9 zoom stops are engageable at 0.8, 1, 1.25, 1.6, 2, 2.5, 3.2, 4, 5.

Leica MZ12s with zoom 12.5:1
With 1× objective and 10× eyepieces magnifications of 8× to 100× are obtained. 10 zoom stops 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
The MZ16 apochromatic high-performance instrument features the largest zoom range and the highest resolution on the market. With a turret for 1× and 2× objectives, objects can be viewed in a magnification range of 7.1× to 230× and with a resolution of up to 840 Lp/mm. Features 12 zoom stops for repetitive tasks.

Leica MZ16 A with 16:1 zoom, motorized
This top-class apochromatic instrument is the first stereomicroscope with a 16:1 motor-zoom and automatic measuring functions. The digital display shows measurement values and magnification, taking the factors of eyepiece, objective, coaxial illumination, etc. into consideration. LAS control and application software.

Leica MZ16 F and MZ16 FA
The special stereomicroscopes for fluorescence applications are described in separate brochures.

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

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

A good stereomicroscope provides 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 by selecting the appropriate binocular tube and additional Ergo Accessory from the wide range available.

Inclined binocular tube 45°
This is the standard tube with a fixed 45° viewing angle. Vary the viewing angle by using the ErgoWedge® ±15° and 5°–25°.

ErgoTube® 45°
As opposed to the standard tube, long eyepiece tubes raise the viewing point by 65mm toward the observer. Being able to use the stereomicroscope at a farther distance away provides a comfortable, upright sitting position. The maximum interpupillary distance which can be set is 90mm and the magnification factor is 1.6×.

Apochromatic ErgoTube® 10°–50°
Using the ErgoTube® the user can change his or her sitting position at any time and match the viewing angle to body height. This provides a flexible sitting position that exerts less strain on the neck and back. For added comfort, the long eyepiece tubes also enable an upright sitting position. The ErgoTube® 10°–50° is made of anti-static material (see page 7).
Ergo Accessories

By utilizing Leica Ergo Accessories, the user can match the viewing height and viewing angle of the various binocular tubes to his or her own height.

ErgoWedge® 5°–25°
When the ErgoWedge™ is used together with the 45° binocular tube, the viewing angle can be set anywhere from 20° to 40° and the viewing height can be individually adjusted at the same time. An additional advantage is that the viewing point shifts toward 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 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 more comfortable.

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

ErgoModule® 30mm–120mm
The ErgoModule® 30mm to 120mm “stretches” short stereomicroscopes and enables users of different heights using the same instrument to adjust to an optimum viewing height.

Straight binocular tube
This tube is ideal for observation using a steeply tilted stereomicroscope, e.g. on a swing arm stand or for OEM adaptation.

Inclined binocular tube, low
The low eyepiece tube ensures 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). Available 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.

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

Ergonomic video/phototubes see p. 34.
Objectives

The requirements

Leica offers a range of high-quality objectives and eyepieces that enable the user to adjust the working distances, total magnifications and the diameters of the field of view to his or her particular application.

To meet your imaging requirements, Leica offers a choice of high-quality interchangeable planachromatic and planapochromatic objectives and also the more affordable achromatic objectives. The assembly diagram on page 66 shows the various objectives that can be combined with the respective stereomicroscope models.

- **Achromatic objectives** are well-suited for observing high-contrast, 3D structures.

- **Flat-field (planachromatic) objectives** are advantageous for studying flat objects such as wafers and thin sections.

- **With planapochromats**, the finest structures can be visualized with higher resolution.
Achromatic objectives
(Suggested for MS5, MZ6, MZ7s, MZ9s)
Leica’s 0.32×, 0.5×, 0.63×, 0.8×, 1×, 1.5×, 2× achromatic objectives offer diverse possibilities for varying field diameter, magnification range and working distances (from 27mm to 297mm).

Planachromatic objective 1× (58mm)
(Suggested for MS5, MZ6, MZ7s, MZ9s)
To obtain good overall image quality, the stereomicroscope can be combined with the 1× high-grade planachromatic objective. This objective provides a flat, sharp image to the very edge of the field.

Planachromatic and planapochromatic objectives
(Suggested for MZ12s, MZ16, MZ16 A)
- The Leica MZ9s is supplied with an adapter ring for the achromatic objectives and the 1× planachromatic objective with 58mm diameter. After removing the intermediate ring, the planachromatic and planapochromatic objectives for the MZ12s can be used.
- An optional adapter (10 446 172) attached to the Leica MS5, MZ6, MZ7s also enables using the MZ12s planachromatic and planapochromatic objectives (see page 66).
- When using the MZ12s planachromatic and planapochromatic objectives on the Leica MS5, MZ6, MZ7s and MZ9s the magnification is increased by 1.25× (see objective combinations on page 68).

Ergo objective
(Suggested for MS5, MZ6, MZ7s, MZ9s)
With the 0.4×—0.63× achromatic Ergo objective it is possible to focus ergonomically and precisely with the objective instead of the focus drive. In the same respect, magnification and working distance can be changed without time consuming objective changes.

Objectives for the MZ12s, MZ16 and MZ16 A
Planachromatic and planapochromatic objectives:
The high-magnification MZ12s, 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 long focal distance:
For special applications, achromatic objectives with long working distances and focal lengths of f=100mm to 400mm are available.

Objective turret
(Suggested for MZ16, MZ16 A)
The objective turret (or revolving nosepiece) carries a 1× and 2× planapochromatic objective. In this way, a fast switchover can be made from high-resolution/low working distance to standard resolution/long working distance lenses. During switchover the object remains sharp (parfocal). The objective turret also serves as a microscope carrier.

Please note: When using the objective turret together with MS5, MZ6, MZ7s, MZ9s or MZ12s large fields of view at low magnifications are not fully illuminated.
Distortion-free widefield eyepieces for eyeglass wearers, high eye-point

- Magnifications of 10×, 16×, 25× and 40×
- Work with or without eyeglasses
- Adjustable eyecups
- Diopter setting adjustable from +5 to –5
- Photo graticules for determining image sections (measuring graticules can be implemented)

The distortion-free, widefield eyepieces for eyeglass wearers (10×/21B) provide excellent imaging. Due to the distance of approximately 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 or without eyeglasses. If you work without eyeglasses and want contact with the eyepieces or eyecups, you can extend the eyecups from 4mm to 20mm.

Soft eyecups

The widefield eyepieces for eyeglass wearers 10×/21B (Order no. 10 447 160) are supplied with soft eyecups that can be attached to the integrated hard plastic eyecups. They protect your eyeglasses from becoming scratched and promote good hygiene when several users are working with the same instrument.

Widefield eyepieces 10×, low eye-point

The exit pupil of the affordable widefield eyepieces 10×/21 (Order no. 10 447 159) is approximately 12mm and is suitable for observation without eyeglasses. The soft eyecups, slanted at the sides, are easily attached. It is possible to adjust diopter settings from +5 to –5, and insert graticules.
A choice of focus drives can be individually combined with each of the Leica MS5, MZ6, MZ7s, MZ9s, MZ12s, MZ16 and MZ16 optics carriers.

**Focus drives for incident and transmitted light stands**
- Focus drives, coarse, with 300mm column, Order no. 10 445 615, and 500mm column, Order no. 10 446 100 (for figure, see page 18, below).
- Focus 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 focus drive permits focusing along the full length of the side-faced column. The focus drive and side-faced column come already assembled. The low-positioned, convenient bilateral drive knobs enable you to work comfortably with supported arms. Ease of movement can be adjusted individually in accordance with the microscope load. The side-faced column with focus drive is available in two versions:
- With coarse drive, fast focusing is possible over greater distances
- The coarse/fine drive permits fine focusing to 1 micron.

To ensure accurate focusing at higher magnifications, the MZ9s, MZ12s, MZ16 and MZ16 A stereomicroscopes should only be used with the coarse/fine drive.

**Mountable focus arm for swing arm stand and OEM**
The mountable focus arm is described on page 19 (Order no. 10 447 151). This item is also a focus drive.

**Leica motor focus system**
- Motor focus system for incident light and transmitted light stands with 300mm column (Order no. 10 446 176) and 500mm (Order no. 10 447 041)
- Motor focus system with inclinable swing arm/table clamp stands, Order no. 10 447 258

The motor focus system enables any microscope to effortlessly move up and down with the turn of a remote hand wheel, the press of a foot pedal, or by means of computer control. Five focus positions can be stored and recalled with the hand control, and an unlimited number with the computer.
Microscope Carriers

The requirements

A stereomicroscope with a logical modular concept brings real rewards. Only a stereomicroscope that allows the flexibility to provide tailor-made solutions for the diverse applications of today and tomorrow, and that can be adapted to many different tasks, workstations and users will prove economical in the long term.

The Leica MS5, MZ6, MZ7s, MZ9s, MZ12s, MZ16 and MZ16 A optics carriers fit onto the microscope carrier and are connected to the stand by the focus drive.

- The objective turret (Order no. 10 447 107) for the Leica MZ16 and MZ16 A also serves as the microscope carrier (see page 15)
- The mountable focus arm (Order no. 10 447 151) serves as a microscope carrier and a focus drive at the same time (see page 19)

Microscope carriers for 3D observation

Order no. 10 445 617 for the Leica MS5, MZ6, MZ7s, MZ9s, MZ12s
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, yet can still be used with all 0.5x to 2x objectives.
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 Ø 4mm and light guide connection 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, MZ7s, MZ9s with achromatic objectives and columns with focus drive
- Order no. 10 447 062 for the Leica MZ12s, MZ16 and MZ16 A and for configurations with planachromatic and planapochromatic objectives (required for use with motor focus)

Users who intend to do 3D image stacking, 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 offers more exact results.

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

**Mountable focus arm for OEM**

In this outfit, the microscope carrier and the focus drive form a single entity. The Ø 15.8mm (5/8") diameter peg enables the microscope to be fitted easily to machines, bonders and rigs. A tiltable joint aligns the optics carrier to the object being observed. Ease of movement of the focus drive is adjustable. The same mountable focus arm can also be used on the swing arm stands (page 22).

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

It is important to arrange the stereomicroscope workstation in exact accordance with individual requirements. The stereomicroscope easily integrates into the work process if the sturdy stand offers unrestricted access to the object and adequate space for tools and jigs.

Incident light stand, anti-static

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

The flat, anti-static incident light base occupies little space. This stand is suitable for the Leica MS5 and MZ6 and is fitted with a black/white stage plate ∅ 120mm. This ergonomic base plate, with its beveled edge, provides comfortable support for the hands.

Sub-base for transmitted light

Using the transmitted light sub-base (Order no. 10 446 341), the small incident light base (Order no. 10 446 340) can be affordably converted to observe transparent objects. For illumination, a cold light source with light guide is necessary. Using an adjustable mirror, the light can be guided at any angle from vertical to nearly horizontal through the object plane. Depending on the inclination of the mirror, certain object structures can be more easily visualized. For example, when observing translucent objects, such as foraminifera and fish eggs, pseudo-darkfield illumination is usually preferred.
Incident light stand, large base
The solid, stable large baseplate is suitable for all M-series stereomicroscopes and especially for heavy outfits.

Individually configure your large incident light stand. Order the following:
- Incident light stand, large base
  (Order no. 10 445 631)

Choice of focus drive:
- Focus drive, coarse, with 300mm column
  (Order no. 10 445 615) or 500mm column
  (Order no. 10 446 100)
- Focus 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 column
  (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)
Swing arm stands offer ample room for large objects (rocks, metal castings, circuit boards) placed directly on the bench top. Various adjustments enable the workstation 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.

**ESD swing arm stand**

- Base with anti-static, durable coating, stainless, available in 2 sizes
- Vertical column 470/35mm made of chrome-plated steel, stainless
- Swinging arm and cross-member made of black anodized aluminum, stainless, grease-free run
- 5 different focus drives with plug ∅15.8mm (5/8”)
- Many and diverse options to mount the focus drives on the horizontal arm
- Easy-glide adjustment
- Tapered horizontal arm secures the stereomicroscope against inadvertent rotation
- Ergonomic control panels
- Stage clamp and flange available as options

The ESD swing arm stand offers protection against electrostatic discharge during assembly and 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 ∅4mm earthling cables. This stable stand is suitable for the similarly anti-static Leica MS5, M26, MZ7s and MZ9s. Order the following:

- Base, small (10 447 260) or medium (10 446 436)
- Vertical column 470/35mm (10 447 008)
- ESD horizontal arm (10 447 097) with clamp and cross-member
- One focus drive of your choice and dependent upon focus drive used also a microscope carrier (see assembly diagram on p. 72)

Instead of a base, the ESD swing arm stand can also be mounted to jigs, machines and stages with a thickness of 21–70 mm by means of a flange (10 447 006) or a stage clamp (10 447 007).
Standard swing arm stands

- Easy-glide even adjustment of the horizontal arm due to ball bearing and lateral polyamide bearing
- Continuous adjustable braking resistance
- Limiting stop for reproducible stereomicroscope positioning
- Base with antistatic, durable coatings, stainless
- Vertical column 470/35mm made of chrome-plated steel, stainless
- Swinging arm and cross-member made of black anodized aluminum, stainless, grease-free
- 5 different focus drives with plug Ø 15.8mm (5/8”)
- Many and diverse options to mount the focus drives on the horizontal arm
- Ergonomic control panels
- Stage clamp and flange available as options

The horizontal arm can easily and evenly be moved forward and backward by means of ball bearing and lateral polyamide bearing so that even frequent position changes are easily and precisely possible without exerting force. For this purpose, the braking resistance can be adjusted individually. The limiting stop can be used to determine a position on the horizontal arm to which it is always possible to return after a movement. This facilitates and accelerates the work for reproducible examinations.

The base is fitted with special dampening feet that significantly reduce the postoscillation of the system. This ensures that the image always remains steady for observation and photography, even if frequent vibrations should occur in the working environment.

Order the following:
- Base, medium (10 446 436)
- Vertical column 470/35mm (10 447 008)
- Standard horizontal arm (10 447 098) with clamp and cross-member
- One focus drive of your choice and dependent upon focus drive used also a microscope carrier (see assembly diagram on p. 72)

Instead of a base, the standard swing-arm stand can also be mounted to jigs, machines and stages by means of a flange (10 447 006) or a stage clamp (10 447 007).

Flex-arm

The flex-arm provides horizontal and vertical movement of up to 90cm, enabling large objects such as circuit boards, works of art or large fossils to be examined. Ease of movement is individually adjustable. The flex-arm offers ample movement for dentistry, as the microscope can swing to and from the object. The adjustable balancing enables the stereomicroscope to be moved effortlessly. Since the instrument can be secured at any given height, it can be moved in the horizontal plane without affecting the sharpness of focus. It can fit onto tables, walls and machines.

Order the following:
- Flex-arm (Order no. 13 312 610)
- Focusing drive, inclinable (Order no. 10 447 254), microscope carrier integrated

ESD swing arm stand, standard and large
The large swing arm stand is perfect for handling heavy stereomicroscope equipment and offers the greatest operating comfort.

The ball-bearing horizontal arm moves very easily, the braking resistance is continuously adjustable. In addition to the adjustable stop on the horizontal arm for reproducible positioning, the stand column also features an adjustment for defining the lateral swinging angle of the horizontal arm. Using the rack rail and crank, even heavy equipment can be moved up and down without exerting force.

Order the following:
- Base, large (10 446 437)
- Vertical column 500/57mm (10 447 230) or 800/57mm (10 447 014)
- Horizontal arm, large (10 447 099) with cross-member
- One focus drive of your choice or the motor focus (10 447 258) and dependent upon focus drive used also a microscope carrier (see assembly diagram on p. 70)

Universal stand
The universal stand is characterized by exceptional stability. Vibrations which would be disturbing during observation at high magnifications or in photography are eliminated with this stand. The base plate readily accepts large objects as well as magnetic stage carriers (see page 28). The coarse/fine drive permits precise focusing at high magnifications and with heavy additional equipment. The same focus drive is also used on the discussion tube.

Dimensions of baseplate: 530 × 350 × 25mm.

The stable, universal stand is suitable for all M-series models and heavy outfits. Order the following:
- Base plate with 450mm column, ∅ 50mm (Order no. 10 445 153) or 800mm column, ∅ 50mm (Order no. 10 445 154)
- Drive housing with coarse/fine drive for ∅ 50mm columns (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)
The requirements

For observing transparent objects under the stereomicroscope, a transmitted light stand is ideal. Even low contrast objects can be sharply reproduced in true color. The ability to observe double-refracting materials and thin sections in transmitted polarized light is also important.

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

**Transmitted light, brightfield**
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, darkfield**
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.

**Oblique transmitted light**
traverses the object at a shallow angle, and will produce effects advantageous for observing semi-transparent, opaque objects such as foraminifera and fish eggs.

**Polarization, transmitted light**
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.
Three stable transmitted light stands are available for all the models in the M-series and for heavy outfits. Each stand is fitted with a glass stage plate $\varnothing$ 120mm. Individually configure your own transmitted light outfit. Order the following:

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

Choice of focus drive:
- Focus drive, coarse, with 300mm column (Order no. 10 445 615) or 500mm column (Order no. 10 446 100)
- Focus 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)

The transmitted light stand, brightfield 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 brightfield to asymmetrical darkfield.

Sub-base for transmitted light, brightfield
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).
Transmitted light stand HL RC™
- Homogenous bright-field illumination with 2 different diffusion grades
- Inclined bright field illumination for the complete magnification range
- Asymmetrical darkfield for the entire magnification range
- Contrast increase via the complete object field without relief display
- Positive or inverted relief presentation
- Flexible adjustment of the light gap in the dynamic relief contrast across the entire object field
- Simple differentiation of phase structures and absorbing structures
- Relief contrast across a large zoom range
- Regulating the relief effect from light to heavy
- No brightness loss with relief contrast

The high-performance HL RC™ transmitted light base meets the most demanding requirements for observation and documentation. The innovative Rottermann Contrast™ from Leica Microsystems is the new technology for contrast-rich presentation of transparent samples that are hardly visible in direct transmitted light brightfield. The HL RC™ transmitted light base provides the option of observing phase specimens without artificial dye in impressive relief contrast.

The Rottermann Contrast™ technology is a partial illumination technique that represents changes of the refractive index as brightness variance. Phase structures then typically act as spatial, relief-type images – in the positive relief contrast like hills, in the inverted relief contrast like recesses. The two built-in diaphragms that create the relief effect can be set individually from open to closed. In addition, fine-tilting the path-folding mirror using the rotary knob on the right side of the base allows for regulating the relief effect from weak to strong. This results in a multitude of variants to obtain the maximum possible amount of information from every object.

Transmitted light stand HL
- For demanding observation and documentation
- High stability for video and photography
- Ratchet for exact brightfield with maximum brightness
- Extremely bright, uniform illumination
- Optional condenser for increasing the NA illumination
- Adjustable reflector for vertical and oblique illumination
- Reflector has mirror and matte sides for direct or diffuse illumination
- Cold light source and fiber optic light guide
- Glass stage plate, 120mm

With 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, which enables particular object structures to be emphasized. The illumination for the transmitted light base HL is produced by a fiber-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.
The following stages can be used with any of the incident light and transmitted light stands in the M-series.

**Gliding stage Ø120mm**
With this accessory specimens can be accurately displaced and turned. The gliding stage is used with the black/white stage plate, a clear glass stage plate or a cup stage.

**Cup stage Ø120mm**
Petri dishes, and highly contoured specimens such as plants and insects, can be attached to the surface of the cup stage and studied from all angles.

**Universal carrier Ø120mm**
The universal carrier enables certain custom instruments to be adapted to Leica stands.

**Leica LED transmitted light illumination**
- Color temperature 5000 K (daylight!)
- 20 white diodes
- Illuminated area Ø 55mm
- Glass slide made of composite glass
- Continuous brightness control via operating unit
- Free of ripple and flicker

- Noiseless, vibration-free operation
- Compact, cost-efficient, long-life
- Battery operation possible

The low-profile transmitted light insert is inserted recessed into the Ø120mm stage opening of the incident light stand and is suitable for routine tasks. 20 diodes provide an homogenous illumination of the area while developing minimal heat. This cost-efficient transmitted illumination excels through low power consumption, long life and low maintenance costs.

**Leica MATS thermal stage**
- Uniform heat distribution across the entire stage surface
- Excellent temperature stability: over 5 hours only < 0.5° C at 37 °C
- Fastest warm-up time: 40° C in approximately 3.5 minutes
- Exact control and regulation of the stage temperature
- Heating up to 50°C adjustable in 0.1°C
- Digital display
- Multiple stages available for Leica stereomicroscopes and compound microscopes (upright and inverted)

The Leica MATS Thermocontrol System enables the observation of specimens that require environmental control, such as live cells in biology, medicine and pharmaceutics. The specimen stage made of optical glass can be heated up to 50°C. Leica MATS ensures a uniform temperature distribution and is suitable for almost any kind of specimen or laboratory experiment.

**Stage carrier, magnetic**
This tool allows Leica stages to be used with a boom stand configuration (Order no. 10 439 170)
The requirements

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

**Inclined incident light, darkfield**
When contoured objects are illuminated with oblique incident light, the rays of light fall on the object from above at an angle to bring out details (steep to shallow). This type of lighting softens dark shadows. This lighting technique can be accomplished by using gooseneck fiber optics or a ring lamp.

**Coaxial incident light, brightfield**
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 polarized, then 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 a similar angle through the use of a quarter-wave plate. Amazing detail can be seen.

**Vertical incident light**
is projected at 5° off of the optical axis so that the light penetrates recesses and enables boreholes and cavities to be observed. Disturbing shadows which may be caused by tools on the stage are avoided during work.

**Fluorescence**
When irradiated with short-wave light, fluorescent substances emit light of a higher wavelength. Stereo fluorescence is an observational technique for research (molecular cell biology, biochemistry, molecular pharmacology, biology) and for the metalworking, electronics and paper industries, as well as in criminology.
Mains lamp 25W
This competitively-priced incident lamp with direct power connection and 25W reflector bulb features 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, filter holder
- Freely positionable lamp holder
- Diverse possibilities for adaptation
- Infinitely variable regulation of the light intensity

The 6V/20W incident lamp is a good choice where ideal light quality, high light output, completely uniform illumination and 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, which accept any Ø32mm filters can be attached to the lamp housing. The lamp holder is very flexible and can be adjusted to any position. It can be fit to the universal stand on the side-faced column (using adapter), cast base, or focus drive.

6V/10W incident illuminator
- Competitively-priced incident lamp
- 6V/10W halogen bulb
- Focusable light spot
- Color temperature 2800K
- Diffusing filter, filter holder
- 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 (Ø50mm). Various adapters enable it to be connected to the side-faced column, objective mount, or cast foot.

Regulating transformer
Two incident lamps with halogen bulb can be connected to the 5.3V–7.5V/40VA (115V/230V regulating transformer. Adjustment to the input voltage of the supply system is done automatically. Safety-tested: LGA, CE, EN 60950, CCA.

Step transformer
This affordable transformer is for powering an incident lamp with halogen bulb. Brightness adjustable in three steps, 4/5/6V.
Cold Light Illuminations

**Fiber optic light guides**
Fiber optic illuminators are available. Flexible gooseneck guides can be clamped onto the microscope carrier.

**Leica LED illumination**
- Color temperature 5000 K (daylight!)
- Free of ripple and flicker
- Long life
- Quiet, vibration-free operation
- Extremely compact design
- Battery operation possible
- Modular concept allows for a combination of ring illuminator and spotlight

Leica LED1000 (Laser Emitting Diode) illumination is available with a ring lamp and/or spot and is suitable for routine tasks with the Leica MS5, MZ6, MZ7s, MZ9s stereomicroscopes. LEDs, which do not generate any heat, are used as illuminators.

**Fluorescent illumination**
The fluorescence ring light offers a homogenous illuminated area in daylight quality. With its antistatic properties, the housing is also suitable for ESD work stations.

- Color temperature 5500 K
- Illuminated area $\varnothing 55$mm
- $360^\circ$ shadow-free, homogenous illuminated area
- Free of ripple and flicker
- Noiseless, vibration-free operation
- Long life
- ESD protective grating
- Battery operation possible

**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 heat influence on the specimens.

- Different models for 30-W, 100-W, 150-W halogen reflector lamps
- Maximum light intensity at fiber-optics output $\varnothing 6$mm depending upon model 5 Mlx, 8 Mlx, 17 Mlx or 19 Mlx
- Maximum bulb service life
- Unlimited combination possibilities of light sources and fiber-optic light guides
- Brightness control (potentiometer) with/without change of color temperature
- Thermal overload protection, axial fan
- Meets all safety-relevant standards
- ESD design

When combining the light sources with gooseneck guides, we also recommend the base (30 117 209). It increases the stability when adjusting the fiber-optic light guides. When using the ring lamp ($\varnothing 76$mm) on the planachromatic objective 0.8x ($\varnothing 80$mm), a special adapter (10 447 078) is required.
Leica L2 – compact, modular cold-light source
• Highest total light flux of 63 lumens at the fiber optic light guide
• No 100Hz flicker, no scattered light, constant color temperature 3200 °K
• Smallest (125mm x 110mm x 150mm) and lightest (0.5kg) cold light source
• The only cold light source that can be coupled directly to the stereomicroscope. 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, which assures a stable light output and automatic adjustment to the respective power voltage of 100V–240V
• Anti-static housing
• Long lamp service life of 250 hours, simple lamp change without using tool
• Noiseless, vibration-free operation
• Diverse fiber optic light guides with protective (self-extinguishing Megolon®) coating
• Accessories for coaxial, vertical, and transmitted light illumination

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

Fluorescence

Leica stereofluorescence module
• For three-dimensional observation of living organisms
• Intensive incident illumination
• Differentiation of the finest structures
• Choice of special filter sets, e.g. for GFP
• UV light user protection

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

Note:
UV radiation could damage the eyes. To protect the eyes of the observer, please order the UV protection screen (10 446 154), the arm (10 399 211) and the clamp (10 445 654).

Only from Leica
Discover the best fluorescence stereomicroscopes of the world: the first motorized, automated, fully apochromatic Leica MZ16 FA (brochure M1-116-5) and the powerful, fully apochromatic Leica MZ16 F with 16:1 zoom (brochure M1-116-8).

For details see brochure M1-205-1.

Coaxial incident illuminator
Order no. 10 446 180

Near vertical illuminator
Order no. 10 445 198

Stereo fluorescence module

Leica L5 FL fluorescence system
• Blue or green fluorescence
• Quick change between fluorescence and bright-field observation possible
• Bright 250-W cold-light reflector lamp
• Color temperature 3350° K
• Filter wheel with 5 filter holders for excitation, color and daylight filter
• Filter changer for suppression filter
• Comfortable high-performance cold-light source
• Fiber-optic light guide and illumination optics

The Leica L5 FL is an affordable, high-quality fluorescence system for blue or green fluorescence excitation. The Leica L5 FL simplifies daily routine work in the laboratory and is suitable for training courses, forensics and industrial stereofluorescence applications. For details see brochure M1-205-1.
The requirements

Those who are using their stereomicroscopes for demanding control and examination tasks, would also like to document the observed objects – as a working document, as evidence material, as illustration for publication and on the Internet or for training purposes. For this reason, an optical precision instrument with high benefits must always allow for state-of-the-art documentation types, such as digital imaging, photography, video and film without complicated special adjustments.

The modular accessory program for digital imaging, video and photography from Leica Microsystems fulfills all individual documentation desires of the professional microscopy. You can combine your tailor-made documentation system or discuss your requirements with your Leica consultant.

Leica IC A integrated video module

The Leica IC A (Integrated Camera Analog) is a high-end 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, affordable, fast, environment-friendly, and high-quality picture production on video printers and recording of moving pictures on the video recorder. Directly coupled to a PC, photos can be processed immediately, stored or subsequently used for direct transmission.

Automatic digital control

The automatic digital control of the camera ensures reproduction quality and reliability for many years of use. The coupling to 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 sharpness on the monitor and in the eyepieces is identical. The center of the image also remains fixed when the magnification is changed.

Basic settings

The video module is optimally adjusted for microscopy purposes with regard to sharpness, brightness and color. The user can work with the factory settings or control the brightness and contrast of the entire image (integrated) or a certain section (spot) and save/call up the changed settings.
FireWire Leica IC D color camera system
- Fast data transfer with standard FireWire
- Live image for fast focusing and positioning
- 3.3 megapixel CCD with Bayer Array RGB filter
- Resolution of 2088 × 1550 pixels, interpolated up to 7.3 megapixel = 3132 × 2325 pixels
- Exposure time between 230 µs and 30 s
- Color depth up to 36 bit RGB
- Connection to all stereomicroscopes of the M-series
- Intuitive user interface with practical functions for image recording and editing

The digital FireWire Leica IC D color camera provides the user with a powerful, ergonomical, cost-efficient and compact solution for professional image recording, archiving, analysis, editing, presentation or printing. The supplied Leica DFC Twain camera software allows for an efficient recording and editing of the data. The camera operates fully automatically. In addition, manual image optimization is possible with a few clicks of the mouse.

Ergonomic design
The camera housing sits protected against dust between binocular tube and optics carrier of the Leica M stereomicroscopes without additional video/phototube and can be combined with the Ergo Tubes® or Ergo Modules® from the Leica ergonomics program. The Leica IC D is easy to install via a single FireWire connecting cable and can be connected to any PC or Macintosh with a monitor.

Digitizing on the CCD chip
The 3.3-megapixel RGB sensor provides a resolution of 2088 × 1550 pixels (interpolated up to 7.3 megapixel = 3132 × 2325 pixels). The light sensitivity of the CCD sensor can be adjusted via gain control to obtain a maximum signal quality prior to digitizing. The brightness signals impinging on the CCD chip are digitized directly at the camera head with a resolution of 12 bits per color channel. This technology allows for a fast baud rate without loss of information or quality and generates a noise-free, sharp and true-color live image on the monitor. In addition, the innovative true-color calibration from Leica Microsystems ensures natural color reproduction and excellent image quality.

For a detailed description of the Leica IC D, see the brochure M1-393-4
### Video/Phototubes

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<thead>
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<th>Trinocular video/phototube</th>
<th>Trinocular tube ultra-low</th>
<th>Video/phototube HD-50</th>
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<th>Video/phototube HD-V</th>
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<tr>
<td><strong>Use</strong></td>
<td>Universal for photography, video, digital imaging</td>
<td>Universal for photography, video, digital imaging</td>
<td>Universal for photography, video, TV, film</td>
<td>Universal for photography, video, digital imaging</td>
<td>Universal for photography, video, TV, film</td>
<td>Universal for photography, video, digital imaging</td>
<td>Universal for photography, video, digital imaging</td>
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<tr>
<td><strong>Special features</strong></td>
<td>Reduces the height</td>
<td>directs 100% light into the camera, for poorly illuminated objects</td>
<td>Reduces the height for high equipment, factor 1.25×</td>
<td>Simultaneous photography and video transmission</td>
<td>Simultaneous photography and video transmission, fixed part system</td>
<td>3 selectable distribution ratios</td>
<td>Competitively-priced, for non-stereoscopic observation on the monitor</td>
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<tr>
<td>Observation</td>
<td>50% stereoscopic observation</td>
<td>100% stereoscopic observation, switchable to video/photo</td>
<td>100% stereoscopic observation</td>
<td>50% stereoscopic observation / 50% in the right and left video/photo beam path, switchable to video/photo</td>
<td>50% stereoscopic observation</td>
<td>– 100% stereoscopic observation / 50% stereoscopic observation / 50% in the video/photo beam path</td>
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| Light distribution for photography/video | – 50% visual stereoscopic – 50% in video/photo path | – 100% visual in one eyepiece – 100% in video/photo path | – 100% in the video/photo beam path – 100% visual in the left eyepiece | – 50% visual in the right eyepiece – 50% in the right video path – 100% in the left video/photo path | – 50% in the video/photo path | – 100% visual in the right eyepiece / 100% in the video/photo path | – 100% in the video/photo path |

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<td>Leica MPS60</td>
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| Supported SLR cameras | various state-of-the-art camera housings, analog and digital | various state-of-the-art camera housings, analog and digital | various state-of-the-art camera housings, analog and digital | various state-of-the-art camera housings, analog and digital | various state-of-the-art camera housings, analog and digital | various state-of-the-art camera housings, analog and digital | various state-of-the-art camera housings, analog and digital |

| Usable video systems | – 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 image recording systems | Leica DFC camera line | Leica DFC camera line | Leica DFC camera line | Leica DFC camera line | Leica DFC camera line | Leica DFC camera line | Leica DFC camera line |

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Video/phototubes are used adapting a Leica digital camera, an MPS system or various commercially available digital or analog SLR and video cameras.

**Trinocular or monocular attachment**
The use of trinocular video/phototubes allows the user to stereoscopically observe the object 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.

**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.

**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**: A switchover is possible between the observation and the 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.

**Trinocular tube, ultra-low**
The ultra-low trinocular tube is specifically suited for high equipment since the viewing height is lowered by approx. 78mm and the viewing angle is 28°. The tube factor is 1.25x and causes an additional magnification. Switching between 100% visual stereoscopic and photo position 100% at 100% observation in the left eyepiece.
Video/phototubes HD F & HD V
The video/phototubes HD F and HD V are optimized for the adaptation of state-of-the-art digital cameras to obtain perfect results for image processing. The video/phototubes can be combined with the binocular tubes and the ErgoModules™ from the Leica ergonomics program. A range of high-quality video objectives with different self-magnifications and C-mount allows for the selection of different image sections.

Note: The video objective 0.32× is shorter. For large cameras, please use the low inclined binocular tube (10 429 781) on the video/phototubes HD F and HD V.

The HD V allows for selecting three different distribution ratios:
- 50% light at all outputs, i.e. 50% light for stereoscopic observation and recording at 50% light.
- 100% light in the right eyepiece for monitoring the object and 100% light in the camera to have the maximum light for the recording under extremely poor light conditions, such as for finest fluorescence signals.
- Three-dimensional observation with 100% light in the binocular tube.

For the HD F, the distribution ratio is fixed and measures 50% in the binocular tube and 50% in the photo beam path. This allows the user to conduct three-dimensional observations of the samples in the binocular tube, manipulate and edit them and simultaneously project the image live on the monitor. Since the sensors of state-of-the-art cameras are highly sensitive, the exposure time for most applications is short inspite of lower light intensity.

Video/phototube HD-50
The two side interfaces on the video/phototube HD-50 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.

Filter-slide housing
The filter-slide housing is installed in the beam path of the stereomicroscope and accommodates two color compensation filters or fluorescence barrier filters.

Double-iris diaphragm
If you want to individually regulate the depth of field, we offer the stereomicroscopes Leica MZ16 and MZ16 A with integrated double-iris diaphragm. For the remaining stereomicroscopes, a double-iris diaphragm (10 445 927) is available as accessories.
Diverse video objectives and adapters offer numerous possibilities for using CCD cameras on Leica stereomicroscopes with video/phototubes.

**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.

**C-mount adapters**

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)
- 0.5× for 1/2″ CCD cameras (Order no. 11 541 016)

**Video objectives**

Video objectives with C-mount:
- 0.32× for 1/3″ and 0.5× for 1/2″, additional video objectives: 0.63× and 0.8×

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.
Accessories for SLR Cameras

Assembly with 2.5× photo projective
The 2.5× photo projective with T2-mount allows the adaptation of SLR 35-mm camera housings (analog or digital) without additional photo eyepiece and without complicated special adaptations on Leica stereomicroscopes with video/phototube. Please order a suitable camera adapter (T-mount).

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:

- Video/phototube of your choice
- 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

SLR projective 2.5× with camera adapter (T-mount) for the use of SLR cameras on video/phototubes (shown with trinocular tube with video/projection lens 1×)
Order no. 10 446 175

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

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

Detailed information in brochure M1-330-0en.

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.

The control unit acquires the signals of the photo diode, processes the variables, immediately calculates the current exposure time and controls the exposure duration.

Type of exposure
Choice of:
- Automatic exposure with the calculated, displayed exposure time
- Fixed-time exposure with stored exposure time

Interchangeable cassettes

The interchangeable cassette system consists of:
- Motor adapter with 0.32× camera objective
- Interchangeable cassette with or without databack

The interchangeable cassette with databack illuminates a 32-space line.

Attachment components for Leica MPS30 and MPS60

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 with distance ring can be inserted in the photo eyepieces and also photographed.

Focusing and framing graticule

With the trinocular attachment the user can observe the sharpness and image section in the binocular tube with the aid of a focusing and framing graticule. Frame lines for all film formats are shown on the graticule.

Leica MPS30 control device
(Order no. 10 446 168)

Leica MPS60 control device
(Order no. 10 446 168)

Trinocular video/phototube (order no. 10 445 924)
with video/photo objective 1×, (order no. 10 445 930)
Eyepiece tube (order no. 10 445 932), Photo eyepiece

Photo eyepieces 8×, 10×, 16× and focusing and framing graticules
Order no. 10 446 120, 10 445 304, 10 445 305
Leica MPS60 photoautomat

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
There are two memories for frequently used parameter combinations (film sensitivity/reciprocity-failure correction/bright or darkfield 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 40

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 unit acquires the signals of the photo diode, processes the variables, immediately calculates the current exposure time and controls the exposure duration.
Leica stereomicroscopes meet the best requirements for professional image recording and analysis. From stereomicroscope to digital camera, including image management and analysis software, Leica Microsystems offers customer-specific complete solutions for professional image acquisition, archiving, analysis, processing, presentation or print.

Our product range goes from standard camera for universal use up to high-end camera for PC and Mac and is perfectly suited for all microscopic procedures. In addition to comfortable operation of the camera, the control program also allows for processing, analysis and archiving digital images. The user interface with online image offers high user comfort and allows for an intuitive, trouble-free operation.

The components for the assembly of the Leica digital cameras on Leica M stereomicroscopes are described on pages 35–37 (video/phototubes) and 38 (video objectives and adapters). All camera systems, including software, are universally applicable for stereomicroscopes and microscopes.

The detailed technical data of the Leica digital cameras are described in individual camera brochures (for brochure numbers, see p. 73).

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**Digital FireWire color camera system  
Leica DFC280**
The Leica DFC280 creates high-quality documentations in real time and is suitable for routine tasks. The recordings are digitized using a 10-bit AD converter with a dynamic range of 700:1. Resolution: 1.3 megapixel (interpolated 2.9 megapixel).

**Digital FireWire color camera system  
Leica DFC320**
The Leica DFC320 offers high image resolution and detail exactness for routine tasks. The image information is digitized directly on the CCD chip in the camera head. This leads to maximum noise suppression and perfect acquisition of the unprocessed CCD signal. Resolution: 3.3 megapixel (interpolated 7.3 megapixel).

**Digital FireWire camera systems  
Leica DFC350 FX and DFC300 FX**
The DFC350 FX (monochrome) and DFC300 FX (color camera) were developed specifically for recording procedures under low light intensities. The highly sensitive 2/3" progressive scan interline sensor allows for quickly bleaching fluorescence specimens and sensitive living cells to be quickly illuminated. Resolution: 1.4 megapixel (interpolated 3.3 megapixel).
Digital FireWire camera system Leica DFC480
The Leica DFC480 provides images of highest resolution as well as color and detail fidelity and is suited for highest demands in science and industry. The image transfer rate and the scan method are freely selectable. Resolution: 5 megapixel (interpolated 11.25 megapixel).

Digital 12 megapixel FireWire camera system Leica DC500
The Leica DC500 is the top-of-the-line professional camera for analyses, measurements and processing of high-quality image data. The Leica DC500 allows for unlimited use for all contrasting, bright and dark procedures and specifically for extremely low-light specimens and weak fluorescence. Resolution: 1.3 to 12 megapixel (interpolated 27 megapixel).

Digital camera system Leica DC150
The Leica DC150 can be used universally for recordings with and without microscope. The 7.1-megapixel RGB CCD provides a maximum resolution of 3072 × 2304 pixels, which is sufficient for A4 or A3 prints in photo quality. The zoom range of the 5.8 – 20.7-mm 3x AF zoom objective corresponds to that of a 35-mm camera with a focal length of 28 to 100mm.

Leica 3D system for microscopy
Leica Microsystems offers the only 3D system worldwide for true 3D visualization of surfaces and for non-tactile quantification of surface parameters. The complete system consists of the integrated Leica IC 3D stereo camera, the Leica StereoExplorer application software, and the Leica ASD 3D display system. Detailed information about the Leica 3D system can be found in the brochure M1-525-5 and in the individual module descriptions.

Digital stereo camera Leica IC 3D
The Leica IC 3D is a digital FireWire stereo color camera with two independent 3.3-megapixel RGB sensors. It creates stereopairs with a resolution of 2088 × 1550 pixels (interpolated 7.3 megapixel = 3132 × 2325 pixels). The live images can be observed directly on the monitor in real time.

Modular Leica StereoExplorer software package
Using two-dimensional stereo image pairs, the Leica StereoExplorer automatically calculates a 3D data record that can be viewed on the monitor. The Profile, Areas and Volume modules allow for precise surface analyses. For example, profiles can be extracted, the roughness or unevenness can be determined, and the volume of depressions or elevations can be calculated.

Leica ASD 3D display
The Leica ASD-3D is the only high-resolution autostereoscopic 3D display that also allows for observing processes under the stereomicroscope on the monitor – spatially and in real time. With the help of a movable prism mask closely in front of the TFT display, the part images recorded with the Leica IC 3D are projected onto the eyes of the observer. The 3D image is absolutely real and appears to be float in front of the 3D monitor ready to be grasped.
For the modular camera systems, Leica Microsystems offers software for professional archiving, processing and analysis of digitized images. Detailed information about the different programs and the modules can be found in separate brochures (for brochure numbers, see p. 61). You can select your tailor-made program or discuss your requirements with your Leica consultant.

**Leica Application Suite, the new powerful software concept**

LAS is the new Leica interface that represents the operating environment for motorized stereomicroscopes, digital cameras, motorized focus drives and external light sources (CLS 150XD, KL 2005LCD) from Leica. LAS optimizes the recording, analysis and editing of digital images in the biosciences, clinical and industrial sector. Thanks to its modular concept, the functionality of LAS ranges from simple, interactive image measurements up to automatic measurements of a multitude of features based on several parameters.

The easy to learn and easy to use software suite is supplied with all motorized components and contains "core functions" such as the control system of the stereomicroscope and a Leica DFC camera as well as image display and basic image editing. Add-on modules such as image superimposition, multifocus and network must be licensed separately.

**Leica IM1000 Image Manager**

Leica IM1000 is a modular software package for image acquisition, processing, measurement and printout as well as for data exchange and back-up. The clearly arranged user-configurable archive structure allows for mapping the entire workflow of a lab in the system.

Leica IM1000 offers a broad range of application modules, such as measuring, MultiFocus, image correlation, time lapse, image superimposition, presentation and much more. Thanks to the modular concept, Leica IM1000 can be tailored to your tasks and your budget.

**Leica Q550MW material workstation**

The Leica Q550MW is designed specifically for material and metallurgy labs. The Leica Q550MW automates the manual tasks required for material analysis and performs demanding analytical tasks quickly, efficiently and economically.

Various modules offer numerous application solutions, such as particle size analysis with Leica QParticles, the steel purity degree analysis with Leica QIncs or hardness test with Leica QHardness, coating or coating thickness measurement with Leica QCoating and much more.

**Image processing and analysis software**

**Leica QWin**

Leica QWin is a modular image analysis software for quantitative microscopy in industry and natural science. Leica QWin is available in five versions that are tailored to the requirements and the budget of the customer:

- QWin Runner (order no. 12 724 166), Leica QWin Lite (order no. 12 724 167), QWin Plus (order no. 12 724 168), Leica QWin Standard (order no. 12 724 169), Leica QWin Professional (order no. 12 724 170).

Leica QWin covers a wide field of applications from interactive measurements up to fully automatic analyses and controls automated microscopes. Thanks to the integrated interactive QUIPS macro language, fully automatic routine procedures can be programmed.

The modularity allows for tailoring the configuration to the needs of the user. Modules are available for the different QWin versions, such as Leica QGallery for saving and displaying images, Leica QFAB for creating analyses, Leica QFFT for performing fast Fourier transformations, as well as time lapse, extended focus, mosaic and much more.

**Leica Application Suite: Directory Browser**

**Leica IM1000 Image Manager:** Extended Viewer for the search and observation of image and data material

**Leica QWin Standard**
The requirements

Leica produces stereomicroscopes for educational and 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, can learn quickly and more easily.

Discussion stereomicroscope

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

The discussion stereomicroscope, as a ready-made workstation, is ideal for training new employees, as well as for expert discussion. 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 coupled with the MS5, MZ6, MZ7s, MZ9s, MZ12s 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). Because of the modular construction, this outfit can also be equipped with a choice of binocular tubes and accessories.
Polarization accessories

There is a choice of two polarizing sets for use with the transmitted light stands:

- Analyzer (Order no. 10 315 306) for achromat achromat objectives, 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 achromat objectives, or (Order no. 10 367 929) for planachromatic and planapochromatic objectives and glass insert with polarizer (Order no. 10 446 228) ∅120mm

When using the rotatable polarization stage together with the sensitive tint plate, even weak birefringence 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 drifting 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 birefringent 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, and 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.
Oblique Observation/
Drawing Tools

The requirements

A high-performance stereomicroscope has additional functional-

ity when the potential of less sophisticated instruments has been

exhausted. Leica stereomicroscopes provide additional observa-

tion techniques not available from other manufacturers.

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 rotat-
ing the specimen.

The patented attachment for vertical and oblique observation is used with the 1× achro-
matic objective and provides a “bird’s eye” view from 45° of the sample. The magnification factor
is 0.6×. A fiber optic light guide provides the best
source of illumination.

Please order the intermediate rings appropriate
to this accessory (see page 67).

Drawing tube

• The specimen and the drawing surface are
visible through the eyepieces at the same
time
• Suitable 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 characteris-
tic features can be sketched easily. 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 photograph-
ing three-dimensional objects. The Leica MZ16
and MZ16 A and the video/phototubes HV, HU,
have built-in iris diaphragms.
<table>
<thead>
<tr>
<th>Objectives</th>
<th>1× Plan</th>
<th>1× Achromat</th>
<th>0.8× Plan*</th>
<th>1× Planapo*</th>
<th>2× Planapo*</th>
<th>1.6× Planapo*</th>
<th>2× Planapo*</th>
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<th>Ergo Objective</th>
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<td>14.4</td>
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<td>24</td>
</tr>
</tbody>
</table>

* When using the planachromatic and planapochromatic objectives MZ12s, the magnification is increased by the factor 1.25x.
Performance Features

Stereomicroscopes MS5 and MZ6

**Construction principle**
Multi-coated optical system with 2 parallel beam paths and 1 main objective, lead-free, parfocal

**ESD surface resistivity**
$<10^{11}$ ohm/square, discharge time <2 seconds, 1,000V to 100V

**Max. numerical aperture**
0.150 with objective achromat $2\times$ and planapochromatic objective $1.6\times/0.075$ with achromatic objective $1\times/0.188$ with planapochromatic objective $2\times$

**Resolution Lp/mm**
450 with achromatic objective $2\times$ or planapochromatic objective $1.6\times/225$ with objective $1\times/563$ with planapochromatic objective $2\times$

**Magnification changer**
MS5: 5-stage, $0.63\times, 1\times, 1.6\times, 2.5\times, 4\times$/MZ6: Zoom $6:1, 0.63\times$ to $4\times$

**7 ratchet position switches (MZ6)**
at $0, 1, 1.25, 1.6, 2, 2.5, 3.2$

**Magnifications with eyepieces $10\times$**
$6.3\times$ to $40\times$ with objective $1\times/7.9$ to $50\times$ (with planapochromatic objective $1\times$)

**Total magnification**
$2\times$ to $320\times/400\times$ (with planapochromatic objective $2\times$)

**Object field**
$∅0.8\text{mm to } 104.2\text{mm}$

**Working distances**
$81\text{mm (1x planachromatic), 97mm (0.63x planapochromatic), 112mm (0.8x planachromatic), 135mm (0.5x planachromatic), 15mm (planapochromatic 2x), 27mm–297mm (achromats)}$

**Planachromatic and planapochromatic objectives**
$1\times$ (planachromatic, planapochromatic), $0.8\times$ (planachromatic), $0.5\times$ (planachromatic), $0.63\times$ (planapochromatic), $1.6\times$ (planapochromatic), $2\times$ (planapochromatic) lead-free

**Achromatic interchangeable objectives**
$1\times, 1.5\times, 2\times, 0.8\times, 0.63\times, 0.5\times, 0.32\times$, ergo objective $0.4\times–0.63\times$ with $90$-mm adjustment range (working distance $63.5–153.5$mm)

**Eyepieces**
Wide-field eyepieces for eyeglass wearers distortion-free, $10\times/21B, 16\times/14B, 25\times/9.5B, 40\times/6B$, low-priced wide-field eyepieces $10\times/21$, soft eyecups, diopter setting $+5$ to $–5$

**Interpupillary distance**
52 to 76mm adjustable

**Binocular tubes**
Various types, apochromatic ErgoTube® $10^\circ$ to $50^\circ$ with synchronized interpupillary adjustment, various ErgoModules®

**Stands, illuminations**

**Focus drive**
Coarse, fine, manual and motorized, tiltable for OEM and swing arm stands

**Length of column**
$300$mm and $500$mm side-faced column

**Microscope carrier**
Two basic heights, optics carrier rotatable through $360^\circ$, stereoscopic or axial observation (AX)

**Swing arm stands**
Versions: ESD with column $470/35$mm, antistatic base available in 2 sizes / standard with horizontal arm with ball bearing, dimensions same as ESD / large with column $800/57$mm or $500/57$mm, horizontal arm with ball bearing, vertical column with rack rail and crank / for ESD and standard stage clamp or flange optional

**Universal stand**
$450/50$mm or $800/500$mm column, $52\times34$cm baseplate, magnetic carrier for stages

**Transmitted light stands**
Bright field, bright and darkfield, high-performance base HL-RCTM

**Stages**
Various, incl. rotatable polarization stage, Leica MATS Thermocontrol System with thermostage

**Incident lamps**
Inclined, coaxial, vertical, fiber-optic light guides, and cold-light sources, ESD-discharge, LED illumination (Laser Emitting Diode), fluorescence module

**Accessories**

**Phototubes**
Various trinocular tubes with different light distribution, incl. ultra-low, monocular video/photo-tube

**Integrated cameras**
Leica IC A analog, IC D digital

**Digital cameras**
Various digital image recording systems from routine to high-end, FireWire Leica DFC camera line

**3D display system**
Leica IC 3D, StereoExplorer, ASD-3D display

**Image archiving, analysis**
Leica Image Manager, QWin, materials work station, various options

**Photomicrographic systems**
Leica MPS30 and MPS60, fully automatic, with databack

**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**
$45^\circ$ side view around the complete object

**Filter-slide housing**
for 2 gelatine filters
**Stereomicroscopes Leica MZ7s and MZ9s**

**Design principle**
Multiple-coated, parfocal high-performance optical system with 2 parallel beam paths and 1 main objective (CMO), lead-free, parfocal

**ESD surface resistivity**
<10¹ ohm/square, discharge time <2 seconds, 1,000V to 100V

**Numerical aperture**
MZ7s: 0.164 with planapochromatic objective 1.6×, 0.082 with planachromatic objective 1×, 0.103 with planapochromatic objective 1×, 0.2 with planapochromatic objective 2×
MZ9s: 0.2 with planapochromatic objective 1.6×, 0.1 with planachromatic objective 1×, 0.125 with planapochromatic objective 1×, 0.25 with planapochromatic objective 2×

**Resolution**
MZ7s: 492 Lp/mm with planapochromatic objective 1.6×, 246 Lp/mm with planachromatic objective 1×, 309 Lp/mm with planapochromatic objective 1×, 615 Lp/mm with planapochromatic objective 2×
MZ9s: 300 Lp/mm with planachromatic objective 1×, 375 Lp/mm with planapochromatic objective 1×, 600 Lp/mm with planapochromatic objective 1.6×, 750 Lp/mm with planapochromatic objective 2×

**Magnification changer**
MZ7s: Zoom 7.9:1/MZ9s: Zoom 9.5:1

**Engageable ratchet positions**
at 0.8, 1, 1.25, 1.6, 2, 2.5, 3.2, 4, 5 (MZ9s)

**Magnifications**
with objective 1×/eyepieces 10×: MZ7s: 6.3× to 50×, MZ9s: 6.3× to 60×/with planapochromatic objective 2×: MZ7s: 15.8× to 125×/MZ9s: 15.8× to 150×

**Total magnification**
MZ7s: 2× to 400×/with planapochromatic objective 2× to 500×/MZ9s: 2× to 480×/with planapochromatic objective 2× to 600×

**Object field**
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×(plan), 0.8×(plan), 0.63×(planapo), 1×(plan, planapo), 1.6×(planapo), 2×(planapo), lead-free

**Achromatic interchangeable objectives**
1×, 1.5×, 2×, 0.8×, 0.63×, 0.5×, 0.32×, ergo objective 0.4×–0.63×with 90-mm adjustment range interchangeable objective (working distance 63.5–153.5mm)

**Eyepieces**
Wide-field eyepieces for eyeglass wearers distortion-free, 10×/21B, 16×/14B, 25×/9.5B, 40×/6B, low-priced wide-field eyepieces 10×/21, soft eyecups, diopter setting +5 to –5

**Interpupillary distance**
52 to 76mm adjustable

**Binocular tubes**
Various types, apochromatic ErgoTube® 10° to 50° with synchronized interpupillary adjustment, various ErgoModules®

**Stands, illuminations**

**Focus drive**
Coarse, fine, manual and motorized, tiltable for OEM and swing arm stands

**Length of column**
300mm and 500mm side-faced column

**Microscope carrier**
Two basic heights, optics carrier rotatable through 360°, stereoscopic or axial observation (AX)

**Swing arm stands**
Versions: ESD with column 470/35mm, antistatic base available in 2 sizes / standard with horizontal arm with ball bearing, dimensions same as ESD / large with column 800/57mm or 500/57mm, horizontal arm with ball bearing, vertical column with rack rail and crank / for ESD and standard stage clamp or flange optional

**Universal stand**
450/50mm or 800/50mm column, 52×34cm baseplate, magnetic carrier for stages

**Transmitted light stands**
Bright field, bright and darkfield, high-performance base HL-RC™

**Stages**
Various, incl. rotatable polarization stage, Leica MATS Thermocontrol System with thermo-stage

**Incident lamps**
Inclined, coaxial, vertical, fiber-optic light guides, and cold-light sources, ESD-discharge, LED illumination (Laser Emitting Diode), fluorescence module

**Accessories**

**Phototubes**
Various trinocular tubes with different light distribution, incl. ultra-low, monocular video/phototube

**Integrated cameras**
Leica IC A analog, IC D digital

**Digital cameras**
Various digital image recording systems from routine to high-end, FireWire Leica DFC camera line

**3D display system**
Leica IC 3D, Stereorexplorer, ASD-3D display

**Image archiving, analysis**
Leica Image Manager, QWin, materials work station, various options

**Photomicrographic systems**
Leica MPS30 and MPS60, fully automatic, with databack

**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
### Eyepieces

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<th>135 Plan</th>
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<th>112 Plan</th>
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<th>15 Plan</th>
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<tr>
<td>10×/21B</td>
<td>0.71*</td>
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<td>29.6</td>
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<td>6.3</td>
<td>33.3</td>
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<td>50</td>
<td>4.2</td>
<td>64</td>
<td>3.3</td>
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</tbody>
</table>

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

**Stereomicroscopes MZ12s, 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.

**ESD surface resistivity**
$<10^{11}$ ohm/square, discharge time $<2$ seconds, 1,000V to 100V.

**Numerical aperture**
MZ12s: 0.2 with planapochromatic objective 1.6x, 0.125 with planachromatic or planapochromatic objective 1x, MZ16 and MZ16 A: 0.28 with planapochromatic objective 2x, 0.14 with planachromatic or planapochromatic objective 1x.

**Resolution**
MZ12s: 375 Lp/mm with planapochromatic or planapochromatic objective 1x, 600 Lp/mm with planapochromatic objective 1.6x, 750 Lp/mm with planapochromatic objective 2x, MZ16 and MZ16 A: 840 Lp/mm with planapochromatic objective 2x, 420 Lp/mm with planachromatic or planapochromatic objective 1x.

**Magnification changer**
MZ12s: Zoom 12.5:1, range 0.8x to 10x,
MZ16: apochromatic manual 16:1 zoom, range 0.71x–11.5x,
MZ16 A: apochromatic 16:1 motor zoom, range 0.71x–11.5x, control via handswitch, foot switch or PC, digital display of current magnification, PC connection.

**Selectable test positions**
MZ12s: 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 1x/eyepieces 10x: MZ12s: 8x to 100x, MZ16 and MZ16 A: 7.1x–115x.

**Total magnification**
MZ12s: 4x to 640x, MZ16 and MZ16 A: 3.5x–920x.

**Object field**
∅ MZ12s: 0.4mm to 52.5mm / MZ16 and MZ16 A: 0.3mm to 59mm.

**Working distances**
60mm (1x planachromatic), 112mm (0.8x planachromatic), 135mm (0.5x planachromatic), 97mm (0.63x planapochromatic), 55mm (1x planapochromatic), 15mm (planapochromatic 2x), 19mm (1.6x planapochromatic), 91–400mm (achromats).

**Planachromatic and planapochromatic objectives**
1x (planachromatic, planapochromatic), 0.8x (planachromatic), 0.5x (planachromatic), 0.63x (planapochromatic), 1.6x (planapochromatic), 2x (planapochromatic), lead-free.

**Objective turret**
MZ16 and MZ16 A: for 1x and 2x planapochromatic objective.

**Wide-field eyepieces for eyeglass wearers**
Distortion-free, 10x/21B, 16x/14B, 25x/9.5B, 40x/6B, soft eyecups.

**Dioptric correction**
+5 to –5.

**Interpupillary distance**
52 to 76mm adjustable.

**Binocular tubes**
Various types, apochromatic ErgoTube® 10° to 50° with synchronized interpupillary adjustment, various ErgoModules®.

**Stands, illuminations**

**Focus drive**
Coarse/fine, manual and motorized, tiltable for OEM and swing arm stands.

**Length of column**
300mm and 500mm side-faced column.

**Microscope carrier**
Two basic heights, optics carrier rotatable through 360°, stereoscopic or axial observation (AX).

**Swing arm stands**
Versions: ESD with column 470/35mm, antistatic base available in 2 sizes / standard with horizontal arm with ball bearing, dimensions same as ESD / large with column 800/57mm or 500/57mm, horizontal arm with ball bearing, vertical column with rack rail and crank / for ESD and standard stage clamp or flange optional.

**Universal stand**
450/50mm or 800/50mm column, 52x34cm baseplate, magnetic carrier for stages.

**Transmitted light stands**
Bright field, bright and darkfield, high-performance base HL-RC™.

**Stages**
Various, incl. rotatable polarization stage, Leica MATS Thermocontrol System with thermo-stage.

**Incident lamps**
Inclined, coaxial, vertical, fiber-optic light guides, and cold-light sources, ESD-discharge, LED illumination (Laser Emitting Diode), fluorescence module.

**Accessories**

**Phototubes**
Various trinocular tubes with different light distribution, incl. ultra-low, monocular video/phototube.

**Integrated cameras**
Leica IC A analog, IC D digital.

**Digital cameras**
Various digital image recording systems from routine to high-end, FireWire Leica DFC camera line.

**3D display system**
Leica IC 3D, StereoExplorer, ASD-3D display.

**Image archiving, analysis**
Leica Image Manager, QWin, materials work station, various options.

**Photomicrographic systems**
Leica MPS30 and MPS60, fully automatic, with databack.

**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 grids**
MZ12s and MZ16: For length measurements and counting, MZ16 A: Automatic calibration and display of measurements.

**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 HF Transmitted Light Stand

Measurements in mm
Dimensions of Leica MZ6 with Incident Light Stand

Dimensions of Leica MZ6 with HF Transmitted Light Stand
Dimensions of MZ75 with Incident Light Stand

Dimensions of Leica MZ75 with HF Transmitted Light Stand

Measurements in mm
Dimensions of MZ95 with Incident Light Stand

Dimensions of Leica MZ95 with HF transmitted light stand
Dimensions of MZ125 with Incident Light Stand

Dimensions of MZ125 with HL Transmitted Light Stand

Measurements in mm
Dimensions of Leica MZ16 with Incident Light Stand

Dimensions of Leica MZ16 with HL Transmitted Light Stand
Dimensions of Leica MZ16 A with Incident Light Stand

Dimensions of Leica MZ16 A with HL Transmitted Light Stand

Measurements in mm
### Parts List

#### Optics Carrier, Microscope Carrier

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<td>10 446 371</td>
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<td>Hand switch for MZ16 A</td>
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<tr>
<td>10 447 049</td>
<td>Cable</td>
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For details on MZ16, MZ16 A see brochure M1-116-1.

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<th>Part No.</th>
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<td>Microscope carrier AX for MS5, MZ6, MZ7s, MZ9s with switch over to axial photography, for focus drive for incident light and transmitted light bases</td>
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<td>Microscope carriers M55, MZ6, MZ7s, MZ9s, MZ12s for focus drive</td>
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<td>10 447 114</td>
<td>Microscope carriers M5, MZ16, MZ16 A for focus drive</td>
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<tr>
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<td>Microscope carrier AX for MZ12s, MZ16, MZ16 A with switch over to axial photography</td>
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#### MS5, MZ6, MZ7s, MZ9s: Objectives

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<td>10 456 275</td>
<td>Planachromatic objective 1× for MZ5/MZ8/MZ7s/MZ9s</td>
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<td>10 422 564</td>
<td>Achromatic objective 0.32×</td>
</tr>
<tr>
<td>10 422 563</td>
<td>Achromatic objective 0.5×</td>
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<tr>
<td>10 445 201</td>
<td>Achromatic objective 0.8×</td>
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<tr>
<td>10 411 589</td>
<td>Achromatic objective 1×</td>
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<tr>
<td>10 422 562</td>
<td>Achromatic objective 1.5×</td>
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<td>10 447 081</td>
<td>Achromatic objective 2×</td>
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<tr>
<th>Part No.</th>
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<tr>
<td>10 445 156</td>
<td>Attachment for vertical and oblique observation* to objective achromat 1×*</td>
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* Order

- for MZ7s intermediate ring 10 446 300 (2×)
- for MZ9s intermediate ring 10 446 300
- for MZ12s and MZ16 intermediate rings 10 446 300 and 10 446 303

#### Objectives for MZ9s/MZ12s/MZ16/MZ16 A

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<td>10 446 157</td>
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<td>10 447 075</td>
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<td>10 447 157</td>
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<td>10 447 051</td>
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<td>10 447 050</td>
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<td>10 447 107</td>
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<td>10 411 597</td>
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<td>10 441 787</td>
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<tr>
<td>10 431 692</td>
<td>Achromatic objective f= 175mm</td>
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<td>10 382 162</td>
<td>Achromatic objective f= 200mm</td>
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<td>10 457 297</td>
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<th>Part No.</th>
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<tr>
<td>10 445 619</td>
<td>Inclined binocular tube 45°</td>
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<td>10 446 253</td>
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<td>10 429 781</td>
<td>Inclined binocular tube, low</td>
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#### Eyepieces

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<td>10 447 160</td>
<td>Wide field eyepiece for eyeglass wearers 10×/21B, distortion-free, adjustable, with eyecup, soft eyecup</td>
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<td>Wide field eyepieces for eyeglass wearers 16×/14B, distortion-free, adjustable, with eyecup</td>
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<td>Wide angle eyepieces for eyeglass wearers 25×/9.5B, distortion-free, adjustable, with eyecup</td>
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<td>10 362 677</td>
<td>Dust cover for photo equipment and for universal stand (800mm column)</td>
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<tr>
<td>10 126 269</td>
<td>Dust cover for large swinging arm and table-clamp stand</td>
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<tr>
<td>10 362 678</td>
<td>Dust cover for discussion swinging arm and universal stand (450mm column)</td>
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#### Incident Light Stands/Components

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<td>Incident light base, large, with black/white stage plate</td>
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<td>Transmitted light base with reflector for 10 446 340</td>
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*Cold-light source with fiber-optic light guide necessary

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<tr>
<td>10 446 615</td>
<td>Focus drive with side-faced column 300mm for incident and transmitted light bases</td>
</tr>
<tr>
<td>10 446 106</td>
<td>Focus drive with side-faced column 500mm for incident and transmitted light bases</td>
</tr>
<tr>
<td>10 447 185</td>
<td>Focus drive, coarse/fine, with side-faced column 500mm for incident and transmitted light stands</td>
</tr>
<tr>
<td>10 446 176</td>
<td>Motor focus drive with column 300mm and supply unit for incident and transmitted light bases</td>
</tr>
<tr>
<td>10 447 041</td>
<td>Motor focus drive with column 500mm and supply unit for incident and transmitted light bases</td>
</tr>
</tbody>
</table>

#### Microscope Carrier

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 446 181</td>
<td>Motor focus manual control</td>
</tr>
<tr>
<td>10 446 182</td>
<td>Motor focus switch</td>
</tr>
<tr>
<td>10 446 260</td>
<td>MF PC interface kit for control of motor focus via PC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 445 153</td>
<td>Baseplate with column 450/50mm</td>
</tr>
<tr>
<td>10 445 154</td>
<td>Baseplate with column 800/50mm</td>
</tr>
<tr>
<td>10 445 629</td>
<td>Drive housing with coarse/fine drive for discussion tube or microscope carrier</td>
</tr>
</tbody>
</table>

Swing arm stand see p. 70
**Incident Light Stands/Components**

Please complete the transmitted light bases 10 446 359, 10 445 367 and 10 445 363 with a fiber-optic light guide (active \( \Theta = 10 \text{mm} \), end tube \( \Theta = 13 \text{mm} \)) and a light source.

- **10 446 359** Transmitted light base HL RC for highest demands, positive/ inverted/dynamic relief contrast, vertical/oblique illumination, asymmetrical darkfield, with glass stage plate, clear.
- **10 446 184** Additional condenser for optimizing the illumination at magnifications >100×, to 10 446 359 and 10 445 367.
- **10 445 367** Transmitted light base HL for highest requirements in observation and documentation. With adjustable mirror for vertical and oblique illumination.
- **10 445 387** Transmitted light base brightfield 20W, with tiltable reflector for vertical and oblique illumination, with clear glass stage plate, 2 halogen bulbs 6V/20W and built-in regulating transformer 0 V–6V 40VA, 100V–120V 200–240V.
- **10 445 363** Transmitted light base bright/darkfield with clear glass stage plate and socket for a cold light source.
- **10 445 615** Focus drive with side-faced column 300mm, for incident and transmitted light bases.
- **10 447 106** Focus drive, coarse/fine, with side-faced column 300mm for incident and transmitted light stands.
- **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** Filter holder, \( \Theta = 50 \text{mm} \), attachable, for lamp 6V/10W.
- **10 401 956** KG1 heat-absorbing filter, \( \Theta = 50 \text{mm} \).
- **10 407 725** Mains lamp housing.
- **10 393 811** Bulb 220V/25W.
- **10 392 902** Bulb 115V/25W.
- **10 404 234** Arm for lamp holder.
- **10 399 211** Arm, clampable, for lamp holder.
- **10 445 654** Clamp for lamp holder on focus drive.
- **10 404 242** Adapter for achromat.
- **10 403 243** Adapter \( \Theta = 25 \text{mm} \) 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 lamp holders with threaded connection, diffusing filter and 2 halogen bulbs 6 V/20W.
- **10 395 195** Filter holder, \( \Theta = 32 \text{mm} \), attachable, for lamp 6 V/20W.
- **10 339 951** Diffusing filter, \( \Theta = 32 \text{mm} \).
- **10 395 200** Adapter for cast foot, 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 \( \Theta = 10 \text{mm} \), end tube \( \Theta = 13 \text{mm} \)) and a light source.

For MZ7s/MZ9s: 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 planachromatic and planapochromatic, for use with microscope carrier AX with coaxial incident light.
- **10 445 198** Vertical incident light housing for fiber-optic light guides and achromats MZ12s. Order – for MZ7s, spacer ring 10 446 300 (2x) – for MZ9s, spacer ring 10 446 300 – for MZ12s and spacer rings 10 446 300 and 10 446 393.
- **10 445 737** Clamp for fixing the fiber-optic light guide to the microscope carrier.
- **10 445 314** Step transformer 4.5/6V, 10VA, prim. 115~/230V, with power cable.
- **10 447 262** Regulating transformer 5.3V–7.5V/40VA, 115V/230V.
- **10 446 636** Power cable, 2m, 3-pole.
- **10 445 661** Power cable, 2m, 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.
- **10 382 658** Halogen bulb 6V/20W.
- **10 447 158** Filter-slide housing.

**Fluorescence Modules**

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 \( \Theta = 120 \text{mm} \).
- **10 446 304** Universal carrier \( \Theta = 120 \text{mm} \).
- **10 446 303** Cup stage \( \Theta = 120 \text{mm} \).
- **10 439 169** Stage carrier with magnetic linkage for stages, \( \Theta = 80 \text{mm} \).
- **10 439 170** Stage carrier with magnetic linkage for cross-stage*.

* available upon request.

For details see brochure M1-227-0.

**Polarization**

- **10 446 302** Rotatable polarization stage \( \Theta = 120 \text{mm} \) with polarizer and glass stage plate, clear.
- **10 392 130** 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 planachromatic and planapochromatic.
- **10 446 228** Glass stage plate with polarizer \( \Theta = 120 \text{mm} \) for transmitted light stands.

**Measuring**

- **10 376 119** Graticule with scale 12mm:120 and crosshair.
- **10 394 771** Graticule with scale 5mm:100.
- **10 376 122** Graticule with grid 100×1×1mm².
- **10 376 120** Crosshair graticule.
- **10 382 406** 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.

**Integrated Video Systems and Digital Cameras**

- **12 730 054** Leica IC D camera kit with Leica IC D camera, 2m 6-pin to 8-pin FireWire cable, Leica DFC Twain software.

Detailed information in brochure M1-393-4.

- **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.
- **12 730 060** Leica IC 3D camera kit with Leica IC 3D camera, 2m 6-pin to 8-pin FireWire cable, Leica DFC Twain software.

Detailed information in brochure M1-525-5 (Leica 3D system with Leica IC 3D stereo camera Stereo Explorer and ASD18 3D monitor).

For additional digital camera systems, see p. 71.
### Parts List

#### L2
- 10 446 385 Leica L2 cold light source
- 10 447 015 Charging set for Leica L2
- 10 446 376 L2 Adapter for focus drive 300m
- 10 446 392 Universal fiber optic light guide

  Detailed information in brochure M1-288-0de

#### LED1000

<table>
<thead>
<tr>
<th>Part Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 211 001</td>
<td>Control unit</td>
</tr>
<tr>
<td>30 211 002</td>
<td>Supply unit</td>
</tr>
<tr>
<td>30 220 001</td>
<td>LED spot</td>
</tr>
<tr>
<td>30 221 005</td>
<td>Gooseneck for spot 85mm</td>
</tr>
<tr>
<td>30 221 006</td>
<td>Gooseneck for spot 200mm</td>
</tr>
<tr>
<td>30 221 007</td>
<td>Gooseneck for spot 300mm</td>
</tr>
<tr>
<td>30 210 002</td>
<td>LED ring lamp</td>
</tr>
<tr>
<td>30 123 101</td>
<td>LED ring lamp adapter for objective MSS/MZ6 (achr. obj. 1x/0.8x/0.63x/0.32x)</td>
</tr>
<tr>
<td>30 123 102</td>
<td>LED ring lamp adapter for objective MSS/MZ6 (achr. obj. 1.5x)</td>
</tr>
<tr>
<td>30 123 103</td>
<td>LED ring lamp adapter for objective MSS/MZ6 (achr. obj. 2x)</td>
</tr>
</tbody>
</table>

Detailed information in brochure Leica LED1000

#### CLS

For details see brochure Leica CLS line cold-light sources

<table>
<thead>
<tr>
<th>Part Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 111 150</td>
<td>CLS 50X MED (230V–240V)</td>
</tr>
<tr>
<td>30 111 250</td>
<td>CLS100X MED (230V–240V)</td>
</tr>
<tr>
<td>30 111 350</td>
<td>CLS150X MED (230V–240V)</td>
</tr>
<tr>
<td>30 150 111</td>
<td>Flex light guide 1-arm 3mm/600mm</td>
</tr>
<tr>
<td>30 150 211</td>
<td>Flex light guide 2-arm 3mm/600mm</td>
</tr>
<tr>
<td>30 130 011</td>
<td>Gooseneck 1-arm 4.5mm/600mm</td>
</tr>
<tr>
<td>30 130 021</td>
<td>Gooseneck 2-arm 3mm/500mm</td>
</tr>
<tr>
<td>30 130 422</td>
<td>Gooseneck 2-arm 4.5mm/600mm ESD</td>
</tr>
<tr>
<td>30 120 101</td>
<td>Ring lamp 6-segment</td>
</tr>
<tr>
<td>30 123 101</td>
<td>Ring lamp adapter for objectives 0.32x–1x</td>
</tr>
<tr>
<td>30 123 102</td>
<td>Ring lamp adapter for objective 1.5x</td>
</tr>
<tr>
<td>30 123 103</td>
<td>Ring lamp adapter for objective 2x</td>
</tr>
</tbody>
</table>

#### KL1500/KL2500

For details see brochure Leica KL1500/KL2500 cold-light sources

<table>
<thead>
<tr>
<th>Part Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 150 200</td>
<td>Cold light source KL1500 LCD, 230V</td>
</tr>
<tr>
<td>31 250 200</td>
<td>Cold light source KL2500 LCD, 230V</td>
</tr>
<tr>
<td>31 154 101</td>
<td>Gooseneck, 1-arm, 600mm</td>
</tr>
<tr>
<td>31 154 202</td>
<td>Gooseneck, 2-arm, 600mm</td>
</tr>
<tr>
<td>31 155 101</td>
<td>Flexible light guide 1-arm d3/1000mm for KL1500</td>
</tr>
<tr>
<td>31 250 101</td>
<td>Flexible light guide 1-arm d12/1000mm for KL2500</td>
</tr>
<tr>
<td>31 157 401</td>
<td>4-point ring lamp, ∅30mm</td>
</tr>
</tbody>
</table>

#### 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

- 10 446 154 UV protection filter for fluorescence modules
- 10 399 211 Arm for UV protection filter
- 10 445 654 Clamp, column/lamp holder

Please order the UV protection screen to protect the eyes of the observer.

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

<table>
<thead>
<tr>
<th>Objective Combinations</th>
<th>Article no.</th>
<th>MS5</th>
<th>MZ6</th>
<th>MZ7s</th>
<th>MZ9s</th>
<th>MZ12s</th>
<th>MZ16/MZ16 A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Achromat</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achromat 1×</td>
<td>10 411 589</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Achromat 1.5×</td>
<td>10 422 562</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Achromat 2×</td>
<td>10 422 561</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Achromat 0.8×</td>
<td>10 473 832</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Achromat 0.63×</td>
<td>10 445 201</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Achromat 0.5×</td>
<td>10 422 563</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Achromat 0.32×</td>
<td>10 422 564</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Ergo objective 0.4× – 0.63×</td>
<td>10 447 148</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td><strong>Planachromatic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planachromatic 1×</td>
<td>10 446 275</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Planachromatic 1× MZ12/MZ16</td>
<td>10 445 819</td>
<td>CA (10 446 172) M</td>
<td>CA (10 446 172) M</td>
<td>CA (10 446 172) M</td>
<td>C*M</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Planachromatic 0.5× MZ12/MZ16</td>
<td>10 446 157</td>
<td>CA (10 446 172) M</td>
<td>CA (10 446 172) M</td>
<td>CA (10 446 172) M</td>
<td>C*M</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Planachromatic 0.8×</td>
<td>10 447 075</td>
<td>CA (10 446 172) M</td>
<td>CA (10 446 172) M</td>
<td>CA (10 446 172) M</td>
<td>C*M</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td><strong>Planapochromatic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planapochromatic 1× MZ12/MZ16</td>
<td>10 447 157</td>
<td>CA (10 446 172) M</td>
<td>CA (10 446 172) M</td>
<td>CA (10 446 172) M</td>
<td>C*M</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Planapochromatic 1.6× MZ12/MZ16</td>
<td>10 472 850</td>
<td>CA (10 446 172) M</td>
<td>CA (10 446 172) M</td>
<td>CA (10 446 172) M</td>
<td>C*M</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Planapochromatic 0.63× MZ12/MZ16</td>
<td>10 446 236</td>
<td>CA (10 446 172) M</td>
<td>CA (10 446 172) M</td>
<td>CA (10 446 172) M</td>
<td>C*M</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Planapochromatic 2× MZ12/MZ16</td>
<td>10 447 101</td>
<td>CA (10 446 172) M</td>
<td>CA (10 446 172) M</td>
<td>CA (10 446 172) M</td>
<td>C*M</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td><strong>Accessories</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coaxial incident light</td>
<td>10 446 180</td>
<td>C</td>
<td>C</td>
<td>O (10 446 300)</td>
<td>O (10 446 300)</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Microscope carrier AX MS5, MZ6, MZ7s, MZ9s</td>
<td>10 445 618</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Microscope carrier AX MZ12s, MZ16, MZ16 A</td>
<td>10 447 062</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Vertical illuminator</td>
<td>10 445 198</td>
<td>C</td>
<td>C</td>
<td>CA 2× (10 446 300)</td>
<td>CA (10 446 300)</td>
<td>CA (10 446 300) + (10 446 393)</td>
<td>CA (10 446 300) + (10 446 393)</td>
</tr>
<tr>
<td>Attachment for vertical and oblique observation</td>
<td>10 445 156</td>
<td>CA 2× (10 446 300)</td>
<td>CA (10 446 300)</td>
<td>CA (10 446 300)</td>
<td>CA (10 446 300) + (10 446 393)</td>
<td>CA (10 446 300) + (10 446 393)</td>
<td>C</td>
</tr>
<tr>
<td>Objective turret for Planapochromatic objective 1× and 2×</td>
<td>10 447 107</td>
<td>(C)</td>
<td>(C)</td>
<td>(C)</td>
<td>(C)</td>
<td>(C)</td>
<td>C</td>
</tr>
</tbody>
</table>

C  Compatible
CA Compatible if used with intermediate ring (order separately)
0  Intermediate ring is recommended
M  Magnification increased by factor 1.25× or higher
(C) Large object fields at low magnifications are not fully illuminated.
*  Remove intermediate ring (10 446 393); already included with MZ9s.
### Video/Phototubes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 445 924</td>
<td>Trinocular video/phototube 50%</td>
</tr>
<tr>
<td>10 446 229</td>
<td>Trinocular video/phototube 100%</td>
</tr>
<tr>
<td>10 446 197</td>
<td>Video/phototube HD-50</td>
</tr>
<tr>
<td>10 445 925</td>
<td>Video/phototube A</td>
</tr>
<tr>
<td>10 446 310</td>
<td>Trinocular tube, ultra-low, 100%, 100%</td>
</tr>
<tr>
<td>10 446 308</td>
<td>Video/phototube HD-F, 50%, 50%</td>
</tr>
<tr>
<td>10 446 309</td>
<td>Video/phototube HD-V, 100%, 50%, 50%, 100%</td>
</tr>
</tbody>
</table>

* The video objective 0.32x is shorter. For this reason, please use the low inclined binocular tube for large cameras (10 429 781)

### Eyepiece Tube

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 445 932</td>
<td>Eyepiece tube for video/photo objectives and video/phototubes (external diameter 37mm)</td>
</tr>
</tbody>
</table>

### Focusing and Framing Graticule for Adjustable Eyepieces

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 446 121</td>
<td>Focusing and framing graticule MPS, 8x</td>
</tr>
<tr>
<td>10 446 131</td>
<td>Connecting sleeve for SLR camera housing</td>
</tr>
<tr>
<td>10 446 132</td>
<td>Focusing and framing graticule MPS, 16x</td>
</tr>
</tbody>
</table>

### Accessories for MPS and SLR Cameras

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 446 120</td>
<td>Photo eyepiece 8x</td>
</tr>
<tr>
<td>10 446 304</td>
<td>Photo eyepiece 10x</td>
</tr>
<tr>
<td>10 445 305</td>
<td>Photo eyepiece 16x</td>
</tr>
<tr>
<td>10 404 207</td>
<td>Adapter 40mm for SLR camera housing</td>
</tr>
<tr>
<td>10 445 541</td>
<td>Camera objective 0.32x</td>
</tr>
<tr>
<td>10 162 226</td>
<td>Connecting sleeve for SLR camera housing</td>
</tr>
</tbody>
</table>
| 10 446 175 | * SLR projection lens 2.5x, with T2 thread, for use with single-lens reflex cameras on video/phototubes *
| 10 446 256 | Adapter T2, Ricoh/Pentax |

---

Leica M-Series Stereomicroscopes

### Video/Photo Objectives

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 445 930</td>
<td>Video/photo objective 1x for video/phototubes</td>
</tr>
<tr>
<td>10 445 931</td>
<td>Video/photo objective H for video/phototube HD</td>
</tr>
<tr>
<td>10 445 928</td>
<td>Video objective 0.32x with C-mount for 1/3” CCD cameras for video/phototubes</td>
</tr>
<tr>
<td>10 445 929</td>
<td>Video objective 0.5x with C-mount for 1/2” CCD cameras for video/phototubes</td>
</tr>
<tr>
<td>10 446 261</td>
<td>Video objective 0.63x with C-mount for 2/3” CCD cameras for video/phototubes</td>
</tr>
<tr>
<td>10 447 307</td>
<td>Video objective 0.8x with C-Mount for CCD cameras for video/phototubes</td>
</tr>
<tr>
<td>11 541 006</td>
<td>C-Mount adapter 1x</td>
</tr>
</tbody>
</table>

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10 445 007 | C-Mount adapter 0.63x |
11 541 016 | C-Mount adapter 0.5x

---

**SLR Camera Housing**

10 445 932 | Video/phototube HD-50 |
10 446 197 | Video/phototube A |
10 445 925 | Video/phototube H |
11 541 007 | Video/phototube 50% |
11 541 008 | Video/phototube 100% |
11 541 016 | Video/phototube HD-F |
11 546 121 | Video/phototube HD-V |

---

**B-Mount Camera Housing**

10 446 123 | B-Mount 3-chip 1/2” CCD camera |
10 445 304 | B-Mount 3-chip 1/3” CCD camera |
10 445 305 | B-Mount 3-chip 2/3” CCD camera |

---

**C-Mount Camera Housing**

11 541 703 | C-Mount adapter 1 |
11 541 706 | C-Mount adapter 0.63 |
11 541 702 | C-Mount adapter 0.5 |
11 541 701 | C-Mount adapter 0.32 |

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**Adapter T2**

10 442 505 |adapter T2, Ricoh/Pentax
10 446 256 |Adapter T2, Ricoh/Pentax

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10 446 257 |Adapter T2, Ricoh/Pentax
10 445 931 |Leica DC cameras
10 446 197 |Leica M-Series Stereomicroscopes
10 445 927 |Leica M-Series Stereomicroscopes

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**Leica MPS30 / MPS60 Photoautomats**

10 445 924 | 50%
10 446 229 | 100%
10 445 925 | Video/phototube A
10 445 926 | Leica MPS30 / MPS60 Photoautomats
10 445 927 | Leica MPS60 Photoautomats

---

**Leica 1” C-Mount Camera Housing**

11 541 006 | 1”, 1x
11 541 007 | 2/3”, 0.63x
11 541 016 | 1/2”, 0.5x

---

**Video/Phototubes**

10 445 924 | 2/3”, 1/3” C-Mount, CCD cameras
10 445 928 | Leica DC cameras
10 445 929 | Leica M-Series Stereomicroscopes
10 446 229 | 3-chip 2/3” C-Mount
10 446 261 | 3-chip 1/3” C-Mount
10 446 307 | 3-chip 1/2” C-Mount
10 445 308 | Leica MPS30 / MPS60 Camera Housing
10 445 309 | Leica MPS60 Camera Housing
10 446 131 | Leica MPS30 / MPS60 Camera Housing
10 446 132 | Leica MPS60 Camera Housing

---

**SLR Camera Housing**

10 445 932 | Video/phototube HD-50
10 446 197 | Video/phototube A
10 445 925 | Video/phototube H
10 446 307 | Video/phototube HD-F
10 446 308 | Video/phototube HD-V
11 541 006 | C-Mount adapter 1x
11 541 007 | C-Mount adapter 0.63x
11 541 008 | C-Mount adapter 1x
11 541 009 | C-Mount adapter 0.63x
11 541 010 | C-Mount adapter 0.5x
11 541 011 | C-Mount adapter 0.32x

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**Focusing and Framing Graticule for Adjustable Eyepieces**

10 446 121 | Focusing and Framing Graticule MPS, 8x
10 446 131 | Focusing and Framing Graticule MPS, 10x
10 446 132 | Focusing and Framing Graticule MPS, 16x

---

**Accessories for MPS and SLR Cameras**

10 446 120 | Photo Eyepiece 8x
10 446 304 | Photo Eyepiece 10x
10 445 305 | Photo Eyepiece 16x
10 404 207 | Adapter 40mm for SLR Camera Housing
10 445 541 | Camera Objective 0.32x
10 162 226 | Connecting Sleeve for SLR Camera Housing
10 446 175 | SLR Projection Lens 2.5x, with T2 Thread, for Use with Single-Lens Reflex Cameras on Video/Phototubes
10 446 256 | Adapter T2, Ricoh/Pentax
Digital Camera Systems

Digital camera systems
12 730 057 Leica DC150 digital camera system with C-mount adapter and camera software
The camera kits contain: The respective Leica camera, Leica DFC Twain software for PC, Leica Firecam software for Mac, Leica IM50 Image Manager for PC, 2 m FireWire cable 6-to-6-pin
12 730 054 Leica IC D camera kit

12 730 050 Leica DFC280 camera kit
12 730 041 Leica DFC320 camera kit
12 730 042 Leica DFC300 FX camera kit
12 730 043 Leica DFC350 FX camera kit
12 730 040 Leica DFC480 camera kit
12 730 049 Leica DFC500 camera kit

Accessories
12 447 140 FireWire cable 4m, 6-to-6 pin
12 447 053 OHCI FireWire PCI card for PCs without FireWire interface
12 447 066 Laptop PCMCIA FireWire interface card
12 730 049 Laptop power kit, power adapter, 2.5 m FireWire cable, 6-4 pin adapter
Swing Arm Stands

For detailed dimensions and descriptions see brochure M1-217-1

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 447 260</td>
<td>Baseplate, small</td>
</tr>
<tr>
<td>10 446 436</td>
<td>Baseplate, medium</td>
</tr>
<tr>
<td>10 447 008</td>
<td>Vertical column 470/35mm</td>
</tr>
<tr>
<td>10 447 097</td>
<td>ESD horizontal arm</td>
</tr>
<tr>
<td>10 447 098</td>
<td>Standard horizontal arm</td>
</tr>
<tr>
<td>10 447 008</td>
<td>Inclinable focus drive</td>
</tr>
<tr>
<td>10 447 006</td>
<td>Flange</td>
</tr>
<tr>
<td>10 447 007</td>
<td>Stage clamp</td>
</tr>
<tr>
<td>10 446 437</td>
<td>Baseplate, large</td>
</tr>
<tr>
<td>10 447 230</td>
<td>Vertical column 500/57mm</td>
</tr>
<tr>
<td>10 447 014</td>
<td>Vertical column 800/57mm</td>
</tr>
<tr>
<td>10 447 099</td>
<td>Horizontal arm, large</td>
</tr>
<tr>
<td>10 447 256</td>
<td>Focus drive with inclinable column</td>
</tr>
<tr>
<td>10 447 257</td>
<td>Focus drive coarse/fine, with inclinable column</td>
</tr>
<tr>
<td>10 447 258</td>
<td>Motor focus with inclinable column, 300mm, and power supply</td>
</tr>
<tr>
<td>10 445 617</td>
<td>Microscope carrier for M-series</td>
</tr>
<tr>
<td>13 312 610</td>
<td>Flex-arm</td>
</tr>
<tr>
<td>13 312 614</td>
<td>Clamp for flex-arm</td>
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</tbody>
</table>
MPS Photoautomats

<table>
<thead>
<tr>
<th>MPS30</th>
<th>10 446 169</th>
<th>Leica MPS30 camera body for integrated metering for photoautomat MPS30</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 446 168</td>
<td>Leica MPS30 photoautomat, 110–240V, with connection cable, dust cover</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MPS60</th>
<th>10 446 108</th>
<th>Leica MPS60 photoautomat, 110–240V, with connection cable and dust cover</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 446 109</td>
<td>Leica MPS60 camera body for integrated and spot metering for MPS60 photoautomat</td>
</tr>
<tr>
<td></td>
<td>10 446 119</td>
<td>Focusing telescope for MPS60, 1% spot</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cassettes</th>
<th>10 445 337</th>
<th>Motor adapter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 445 541</td>
<td>Camera objective 0.32×, for photo eyepieces</td>
</tr>
<tr>
<td></td>
<td>10 445 338</td>
<td>Interchangeable cassette 24×36mm</td>
</tr>
<tr>
<td></td>
<td>10 445 143</td>
<td>Interchangeable cassette 24×36mm with databack</td>
</tr>
<tr>
<td></td>
<td>10 445 390</td>
<td>Input device for interchangeable cassette 24×36mm with databack</td>
</tr>
</tbody>
</table>
Information Material

Stereomicroscopes, zoom systems and accessories

All brochures available in German, English, French, Spanish, Italian. For M and S series stereomicroscopes, manuals are available in German, English, French, Spanish, Italian, Danish, Swedish, Dutch, Finnish, Greek, Portuguese, Estonian, Latvian, Lithuanian, Polish, Czech, Slovenian, Hungarian, Slovak.

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. You can also view, print and save any brochures and the latest manuals.

Stereomicroscope Leica MS5, MZ6 M1-141-0
Stereomicroscope Leica MZ7s M1-175-0
Stereomicroscope Leica MZ9s M1-195-0
Stereomicroscope Leica MZ12s M1-125-0
Stereomicroscopes Leica MZ16 and MZ16 A M1-116-0
Fluorescence stereomicroscope Leica MZ16 F M1-116-8
Motorized fluorescence stereomicroscope Leica MZ16 FA M1-116-5
Leica FluoCombi III™ for Leica fluorescence stereomicroscopes M1-166-2
Leica StereoZoom® Greenough Stereomicroscopes M1-188-0
Leica S4 APO StereoZoom®, natural science M1-188-3
Leica S4 APO StereoZoom®, technology M1-188-4
Zoom systems Leica Z6 APO and Z16 APO M1-416-0
Motorized zoom systems Leica Z6 APO A & Z16 APO A M1-417-0
Leica MacroFluo™ fluorescence macroscope M1-416-2
Leica HL-RC™ high-performance transmitted light stand with Rottermann Contrast™ technology M1-216-2
Leica MATS heating stages M1-227-0
Leica L2 cold light source M1-288-0
Leica L5 FL cold light fluorescence system M1-205-1
Leica ErgoModules® M1-215-2
Leica IC A video module for Leica M stereomicroscopes M1-393-1
Leica ICC A video module for Leica M stereomicroscopes M1-393-2
Leica MPS30 photoautomat M1-330-0
Leica MPS60 photoautomat M1-360-0
Leica colposcope M1-280-0
Swing arm stands M1-217-1

Digital cameras & image processing/analysis software

Leica ICD Integrated digital camera M1-393-4
3D display system: Leica IC 3D, StereoExplorer, ASD-3D-Display M1-525-5
Leica DFC280 FireWire color camera system M1-398-2
Leica DFC300 FX FireWire color camera system M1-398-1
Leica DFC320 FireWire color camera system M1-398-6
Leica DFC350 FX FireWire monochrome camera system M1-397-8
Leica DFC480 High-performance FireWire camera system M1-398-8
Leica DC500 High-resolution 12-megapixel camera M1-398-3
Leica DC150 Digital camera system M1-398-4
Leica IM1000 Image Manager image management system M1-502-0
Leica QWin for quantitative microscopy M1-511-0
Leica Q550MW M1-555-0
LAS Image Overlay M1-525-1
LAS Multifocus M1-525-2
LAS Reticule M1-525-3
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● Microscopy Systems  
Our expertise in microscopy is the basis for all our solutions for visualization, measurement and analysis of microstructures in life sciences and industry. With confocal laser technology and image analysis systems, we provide three-dimensional viewing facilities and offer new solutions for cytogenetics, pathology and materials sciences.

● Specimen Preparation  
We provide comprehensive systems and services for clinical histo- and cytopathology applications, biomedical research and industrial quality assurance. Our product range includes instruments, systems and consumables for tissue infiltration and embedding, microtomes and cryostats as well as automated stainers and coverslippers.

● Medical Equipment  
Innovative technologies in our surgical microscopes offer new therapeutic approaches in microsurgery.

● Semiconductor Equipment  
Our automated, leading-edge measurement and inspection systems and our E-beam lithography systems make us the first choice supplier for semiconductor manufacturers all over the world.