From Eye to Insight

Leica MICROSYSTEMS

LEICA DM4 – 6 B/M/P

Modular System

Stand, modules, accessories

June 2025

LEICA DM4 B/M, DM4 P, DM6 B/M, DM6 B/M LED MODULAR SYSTEM

Content

LEICA DM4 B (BIO/MED) WITH LCD DISPLAY

The Leica DM4 B is a research system microscope for the following transmitted light and incident light methods in the fields of biology and medicine:

Transmitted light:	Bright field, dark field, phase contrast, polarization contrast
Incident light:	Fluorescence

Important functions, such as adjusting diaphragms, condensers and luminous intensity to match the magnification level and contrast method, are automated and provide the utmost convenience and working comfort.
The microscope stand can be custom-built using the following equipment components:

Leica DM4 B base stand (Fig. 1 p. 3)

Consisting of stand base and stand column including transmitted light diaphragm module, function keys for motorized aperture/field diaphragm and light intensity control and 6 free programmable function keys, status display for displaying all relevant microscope parameters. LED transmitted light illumination for constant color temperature. USB 2.0 interface for connection to a PC including USB 2.0 cable (for computer-controlled configuration of automatic and encoded functions), AC power supply: 90–250 V 50–60 Hz. Including operating manual, sheets of adhesive labels for 6 function keys. IVD 11888858
RUO 11888866

Mechanical coaxial double drive (1 Fig. 1 p. 3)

Included in the base stand. Consisting of drive guide housing with guide plate for interchangeable stages, with coaxial coarse and fine focusing knobs with micrometer increments for fine drive. The focussing dial for right-hand operation is flat and designed with finger depressions so that the focus and stage drive may be operated at the same time. This dial affects the fine drive only.

Z stroke coarse and fine drive, total:	25 mm
Z stroke fine drive:	0.2 mm per turn of the knob (1 scale interval = 2 µm).
Z stroke coarse drive:	3.5 mm per turn of the knob
Total stage stroke:	45–50 mm depending on condenser type

Base plate with filter magazine for two light filters (Fig. 2 p. 3)

Light filter D = 32 mm without mount 11888100

Alternative:
Baseplate without filter magazine (not pictured) 11888098

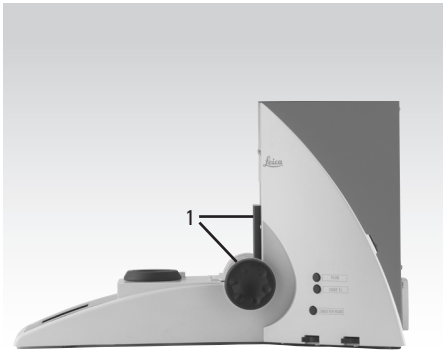


Fig. 1: Base stand Leica DM4 B with mechanical coaxial double drive

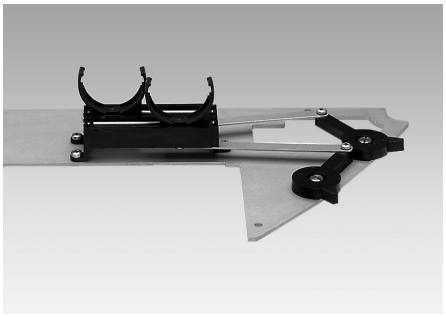


Fig. 2: Base plate with filter magazine for two light filters

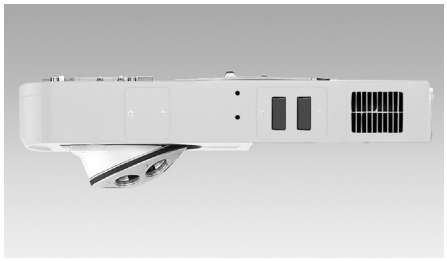


Fig. 3: Stand top Leica DM4 B with cover for objective turret

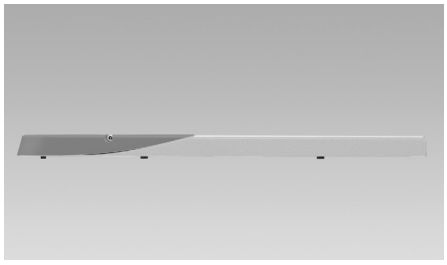


Fig. 4: Cover for stand top

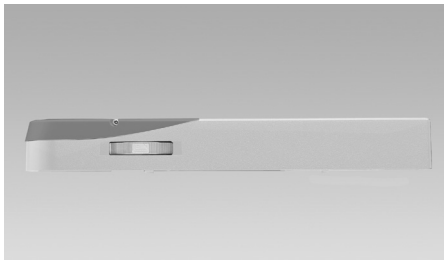


Fig. 5: Magnification changer Bio, encoded

Stand top DM4 B, 6x objective turret, without Fluo

(as in Fig. 3 p. 4, but without incident light axis and adjusting window)
Stand top with encoded 6x objective turret with objective screw-on thread M25 mm and interchangeable fitting for cover for stand top or magnification changer, without incident light axis.

11888885

Alternative:
Stand top DM4 B, 6x objective turret, 5x Fluo (Fig. 3 p. 4)

Stand top with encoded 6x objective turret with objective screw on thread M25 mm, with new 1" fluorescence axis with encoded, motorized 5x reflector disk for holding fluorescence filter blocks, incident light reflectors BF, ICR, POL/IGS (DF and Smith cannot be adapted) and analyzer block and with motorized FIM (Fluorescence Intensity Manager) and motorized field diaphragm disc. Interchangeable fitting for holding the cover for stand top or magnification changer. Fitting to lamp housings with 1" collector

11888882

Alternative:
Stand top DM4 B , 7x objective turret, without Fluo

Stand top with encoded 7 x objective turret with objective screw-on thread M25 mm and interchangeable fitting for cover for stand top or magnification changer, without incident light axis.

11888883

Alternative:
Stand top DM4 B, 7x objective turret, 5x Fluo

Stand top with encoded 7 x objective turret with objective screw-on thread M25 mm, with new 1 " fluorescence axis with encoded, motorized 5x reflector disk for holding fluorescence filter blocks, incident light reflectors BF, ICR, POL/IGS (DF and Smith cannot be adapted) and analyzer block and with motorized FIM (Fluorescence Intensity Manager) and motorized field diaphragm disc.
Interchangeable fitting for holding the cover for stand top or magnification changer. Fitting to lamp housings with 1" collector.

11888884

Alternative for Stand tops DM4 B, 7x objective turret (11888883, 11888884):
Slot for DIC prism slider (Fig. 22 p. 12) 11888187

Cover for stand top (Fig. 4 p. 4)

Stand cover housing with interchangeable surface for tube connection 11890003

Alternative:
Magnification changer Bio, encoded (Fig. 5 p. 4)

Stand cover housing with magnification levels 1x, 1.25x, 1.6x with interchangeable surface for tube connection 11890004

LEICA DM6 B (BIO/MED) WITH LEICA SMARTTOUCH

The Leica DM6 B is a research system microscope with automated nosepiece and motorized functions for the following transmitted light and incident light methods in the fields of biology and medicine:

Transmitted light:	Bright field, dark field, phase contrast, polarization contrast, Interference contrast T (ICT)
Incident light:	Fluorescence, bright field, interference contrast R (ICR) (partially automated).

Functions such as adjustment of diaphragms, condenser and luminous intensity for the magnification and contrast method can be controlled and reproduced automatically. Objective-side and condenser-side IC prisms, and the analyzer and polarizer are motorized and encoded. All motorized functions are controlled and displayed using the new touch panel Leica Smart-Touch. The microscope stand can be custom-built using the following equipment components:

Base stand DM6 B (Fig. 6 p. 5)

consisting of stand base and stand column including transmitted light diaphragm module, touch panel for Leica SmartTouch to set and manage contrast methods, the fluorescence filter blocks, the shutter (fluorescence slot for light stop), the objectives, the motorized MBDT tube, as well as certain stages and focus positions. Display of magnification, diaphragm position, light intensity and IC prism setting. Separate function keys for motorized aperture and field diaphragm and light intensity control. Interface for the external electronics housing (CTR compact / CTR Compact XY / CTR advanced) for lamp supply, as well as USB 2.0 interface, triggering with Optional synapse control and supply of the motorized stand functions. Including operating manual, 2 sheets of adhesive labels for 10 function keys.

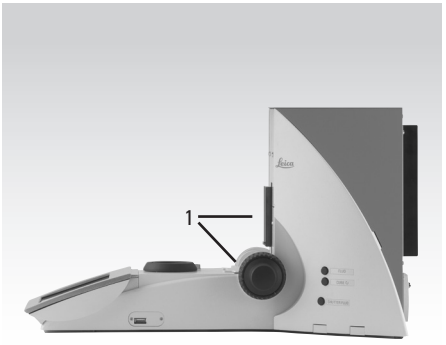


Fig. 6: Base stand Leica DM6 B with motorized coaxial double drive

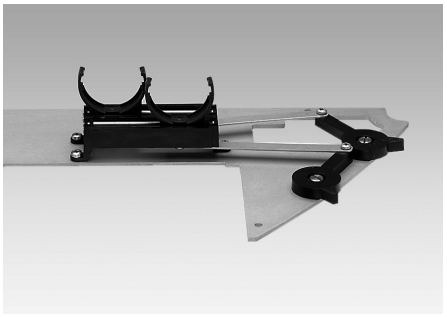


Fig. 7: Base plate with filter magazine for two light filters

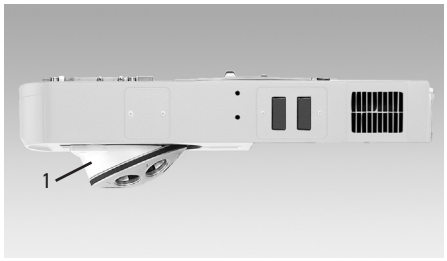


Fig. 8: Stand top Leica DM6 B with cover for objective turret

Mechanical coaxial double drive Included in the base stand. Consisting of drive guide housing with guide plate for interchangeable stages, with coaxial coarse and fine focusing knobs with micrometer increments for fine drive. The focussing dial for right-hand operation is flat and designed with finger depressions so that the focus and stage drive may be operated at the same time. This dial affects the fine drive only.

Z stroke coarse and fine drive, total:	25 mm
Z stroke fine drive:	0.2 mm per turn of the knob (1 scale interval = 2 µm).
Z stroke coarse drive:	3.5 mm per turn of the knob
Total stage stroke:	45–50 mm depending on condenser type

DM6 B IVD LED 11889189
DM6 B RUO LED 11889187

or

Motorized coaxial double drive (1 Fig. 6 p. 5)

Included in the base stand. Consisting of drive guide housing with guide plate for interchangeable stages, with focusing knobs on both sides of the stand.
Step size (min. increment): 3.8 nm

Max. speed:	5 mm/sec.
Max. load:	4 kg

DM6 B IVD LED 11889188
DM6 B RUO LED 11889186

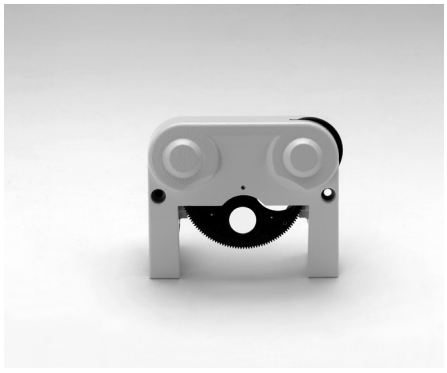


Fig. 9: DIC prism disk, 4x motorized, encoded

Base plate with filter magazine for two light filters (Fig. 7 p. 5)

D = 32 mm 11888100

Alternative:
Baseplate without filter magazine (not pictured) 11888098

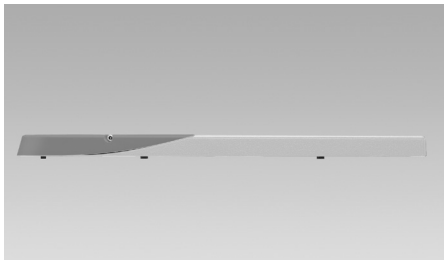


Fig. 10: Cover for stand top

Stand top DM6 B, 7x objective turret, 5x Fluo (Fig. 8 p. 6)

Stand top with encoded, motorized 7x objective turret with objective screw-on thread M25 x 0.75 mm, with new 1" fluorescence axis with encoded, motorized 5x reflector disk for holding fluorescence filter blocks, incident light reflectors BF, ICR, POL/IGS (DF and Smith cannot be adapted) and analyzer block and with motorized FIM (Fluorescence Intensity Manager) and motorized field diaphragm disc. Fitting to lamp housings with 1" collector. Interchangeable fitting for holding the cover for stand top or magnification changer. 11889204

or:
Stand top DM6 B, 5-f.Fl,7x,mot.,IFW + Ext.Man.

Same stand top as described under 11889204.
Additionally equipped with motorized, integrated filter wheel (IFW) and motorized Excitation Manager.
Together with a dual or triple filter block, the IFW can be used to very quickly (<50 msec) switch between different emissions without having to move a filter block. Using the Excitation Manager, the fluorescence intensity can balanced between red and green in 16 fine increments. 11889205

Stand top DM6 B, 7x objective turret , without Fluo

(as in Fig. 8 p. 6, but without incident light axis and adjusting window) Stand top with encoded 7x objective turret with M25 x 0.75 mm objective screw-on thread and interchangeable fitting for cover for stand top or magnification changer, without incident light axis.

11888892

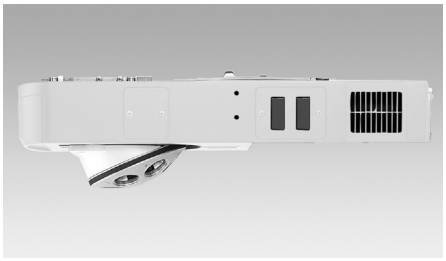


Fig. 11: Stand top Leica DM6 B with cover for objective turret

Alternative:

Stand top DM6 B, 7x objective turret, 5x Fluo (Fig. 11 p. 7)

Stand top with encoded 7x objective turret with objective screw-on thread M25 x 0.75 mm, with new 1" fluorescence axis with encoded, motorized 5x reflector disk for holding fluorescence filter blocks, incident light reflectors BF, ICR, POL/IGS (DF and Smith cannot be adapted) and analyzer block and with motorized FIM (Fluorescence Intensity Manager) and motorized field diaphragm disc. Interchangeable fitting for holding the cover for stand top or magnification changer. Fitting to lamp housings with 1" collector.

11889202

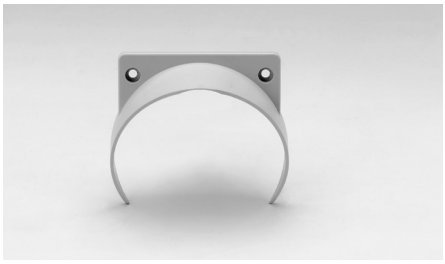


Fig. 12: Cover for objective turret

Alternative:

Stand top DM6 B, 7x objective turret, 8x Fluo (not pictured)

Stand top with encoded 7x objective turret with objective screw-on thread M25 x 0.75 mm, with new 1" fluorescence axis with encoded, motorized 8x reflector disk for holding fluorescence filter blocks, incident light reflectors BF, ICR, POL/IGS (DF and Smith cannot be adapted) and analyzer block and with motorized FIM (Fluorescence Intensity Manager) and motorized field diaphragm disc. Interchangeable fitting for holding the cover for stand top or magnification changer. Fitting to lamp housings with 1" collector.

11889203

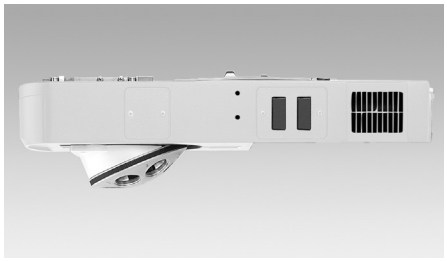


Fig. 13: Stand top Leica DM6 B with cover for objective turret

Alternative:
Stand top DM6 B, 7x objective turret, 8x Fluo (not pictured)

Stand top with encoded, motorized 7x objective turret with objective screw-on thread M25 x 0.75 mm, with new 1" fluorescence axis with encoded, motorized 8x reflector disk for holding fluorescence filter blocks and incident light reflectors BF, ICR, POL/IGS (DF and Smith cannot be adapted) and analyzer block, with motorized FIM (Fluorescence Intensity Manager) and motorized field diaphragm disc. Fitting to lamp housings with 1" collector. Interchangeable fitting for holding the cover for stand top or magnification changer. 11889206

Or:
Stand top DM6 B, 8x Fluo with IFW/ Excitation Manager

Same stand top as described under 11889206. Also equipped with motorized, integrated filter wheel (IFW) and motorized
Excitation Manager (for description, see 11889205) 11889207

Alternative:
Stand top DM6 B, 7x objective turret, without Fluo

Leica DM6 B Stand top with encoded, motorized 7-fold objective nosepiece (25 mm thread); without fluorescence axis. 11888889

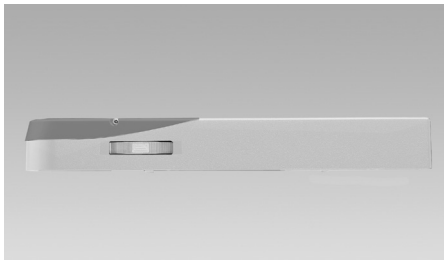


Fig. 14: Magnification changer Bio, encoded

Cover for objective turret (see 1 Fig. 8 p. 6)

Integrated in the stand top 11889204 and 11889206. 11888105

Alternative:
DIC prism disk, 4x motorized, encoded (Fig. 9 p. 6)

For up to 3 objective prisms and 1 blank, including knurled disk for fine contrast adjustment (encoded). Installed in objective
turret on upper part of stand. 11555071

Cover for stand top (Fig. 10 p. 6)

Stand cover housing with interchangeable surface for tube connection 11890003

Alternative:
Magnification changer Bio, encoded (Fig.14 p. 8)

Stand cover housing with magnification levels 1x, 1.25x, 1.6x with interchangeable surface for tube connection 11890004

Electronics CTR Boxes

With built-in power supply LED lamp housings and for control of the automatic microscope functions. Including USB cable. AC power supply 90–250 V, 50–60 Hz.

Leica CTR compact

For all Leica DM6 stands without motorized stages 11525206

Leica CTR compact XY (Fig. 36 p. 18)

Preconfigured with the control board for a motor and scanning stage. For motor stages the adapter cable 11505237 (Adapter XY-basic/XY-advanced) must be added. The box has no further slots to add additional control boards! 11525227

Leica CTR advanced (Fig. 15 p.9)

For all Leica DM6 stands with 1 Master-Module incl. 1x serial, 2x USB, 3 x I²C, upgradable with 6x CTR boards for motorized stages, for high-speed sequencer 11525207

CTR board XY basic

CTR Board xy basic,15 pins, to control motor stages (rack and pinion) 11525210

CTR board XY advanced

CTR Board xy advanced, 25 pins, to control Scanning stages 11525226

Adapter XY-basic / XY advanced (Adapter cable 15/25 pins)

When using a motor stage in combination with CTR Board xy advanced, 25 pins (11525226) on CTR advanced (11525207) or with CTR compact XY (11525227) 11505237

Cable scanning stage, XY-adv. board

When using a scanning stage in combination with CTR Board xy advanced, 25 pins (11525226) or CTR compact XY (11525227) 11525218

Sequencer Advanced 11525228

SmartMove (Fig. 16 p. 9)

XYZ-Ergo control panel for electronic focus (z) and motor stage (xy). With 4 freely programmable function keys. 11525232

Alternative:
Leica STP8000 Smart Touch Panel (Fig. 17 p. 9)

XYZ-Ergo control panel with integrated Touch Screen and 11 freely programmable function keys. 11525231

Fig. 15: Electronics box Leica CTR advanced

Fig. 16: Leica SmartMove

Fig. 17: Leica STP8000

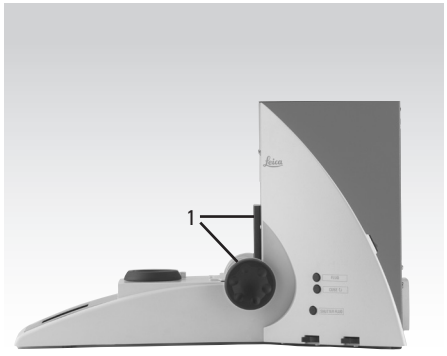


Fig. 18: Base stand Leica DM4 M with mechanical coaxial coarse/fine focus drive

LEICA DM4 M (IND. INCIDENT LIGHT) WITH LCD DISPLAY

The Leica DM4M is a system microscope designed for the following incident light methods:
Bright field, dark field, polarization contrast, interference contrast (ICR), fluorescence.
This stand is designed for incident light only. The Leica DM4 M TL + IL stand (see p. 14) is available for incident and transmitted light. Important routine functions such as adjusting the LED intensity and the field and aperture diaphragms to the objective magnification and specimen conditions are automated, providing optimum comfort while working.

Halogen illumination is only possible with external power supply, see page 35

The microscope stand can be custom-built using the following equipment components:

Base stand Leica DM4 M (Fig. 18 p. 10)

consisting of stand base and stand column. Function keys for the intensity control, aperture and field diaphragm control, LCD screen for displaying magnification levels, light intensity and diaphragm position. LED illumination for constant color temperature. USB 2.0 computer interface including USB 2.0 cable for configuration of the microscope functions. Including operating manual, sheets of adhesive labels for 6 function keys. 11888775

Mechanical coaxial coarse/fine focus drive (1 Fig. 18 p. 10)

Included in the base stand. Consisting of drive guide housing with guide plate for interchangeable stages, with coaxial coarse and fine focusing knobs with micrometer increments for fine drive. The focussing dial for right-hand operation is flat and designed with finger depressions so that the focus and stage drive may be operated at the same time. This dial affects the fine drive only.

Z stroke coarse and fine drive, total:	25 mm
Z stroke fine drive:	0.2 mm per turn of the knob (1 scale interval = 2 µm)
Z stroke coarse drive:	3.5 mm per turn of the knob
Total stage stroke:	45–50 mm depending on condenser type
Overall stage stroke:	80 mm when using a specimen stage Stage MU

Baseplate without filter magazine (not pictured) 11888098

LEICA DM4 M (IND. INCIDENT LIGHT/ TRANSMITTED LIGHT) WITH LCD DISPLAY

The Leica DM4 M is a system microscope for the following incident and transmitted light methods:

Incident light:	Bright field, dark field, polarization contrast, interference contrast (ICR), fluorescence,
Transmitted light:	Bright field, dark field, phase contrast, polarization contrast, interference contrast (ICT).

Important routine functions such as adjusting the diaphragms, condenser, and intensity to the objective magnification and specimen conditions are automated, providing optimum comfort while working.

Halogen illumination is only possible with external power supply, see page 35

The microscope stand can be custom-built using the following equipment components:

Leica DM4 M base stand (Fig. 19 p. 11)

consisting of stand base and stand column including transmitted light diaphragm module, function keys for motorized aperture/ field diaphragm and intensity control, LCD display for displaying magnification level, diaphragm setting and light intensity. LED illumination for constant color temperature. USB 2.0 computer interface including USB 2.0 cable for configuration of the stand functions., AC power supply: 90–250 V, 50–60 Hz., Including operating manual, sheets of adhesive labels for 6 function keys. 11 888 774

Mechanical coaxial coarse/fine focus drive (1 Fig. 19 p. 11)

Included in the base stand. Consisting of drive guide housing with guide plate for interchangeable stages, with coaxial coarse and fine focusing knobs with micrometer increments for fine drive. The focussing dial for right-hand operation is flat and designed with finger depressions so that the focus and stage drive may be operated at the same time. This dial affects the fine drive only.

Z stroke coarse and fine drive, total:	25 mm
Z stroke fine drive:	0.2 mm per turn of the knob(1 scale interval = 2 µm).
Z stroke coarse drive:	3.5 mm per turn of the knob
Total stage stroke:	45–50 mm depending on condenser type
Overall stage stroke:	80 mm when using the specimen stage MU (Fig. 48 p. 22)

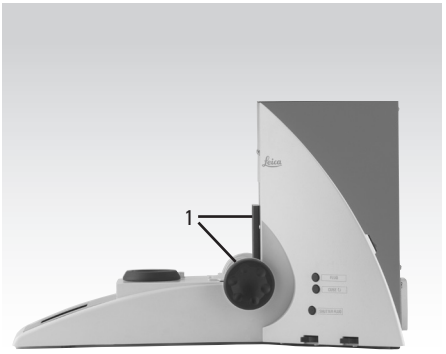


Fig. 19: Base stand Leica DM4 M with mechanical coaxial coarse/fine focus drive

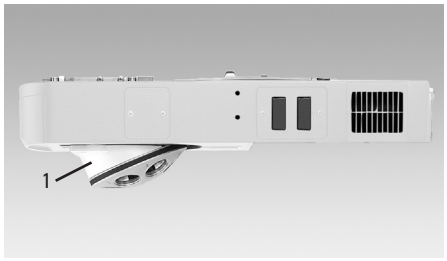


Fig. 20: Stand top Leica DM4000 M

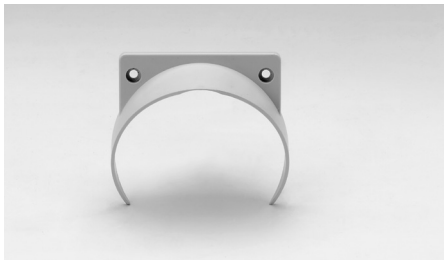


Fig. 21: Cover for objective turret

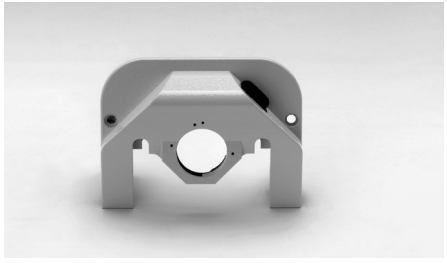


Fig. 22: Cover for objective turret with insert for DIC prisms in slide bars

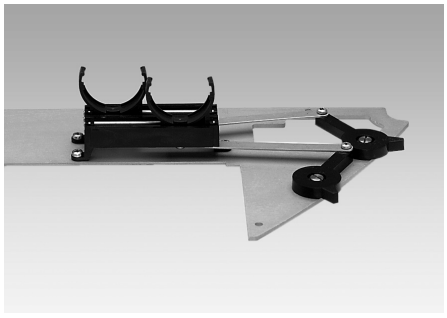


Fig. 23: Base plate with filter magazine for two light filters

Stand top DM4 M, 6x objective turret, 4x (RL) (Fig. 20 p. 12)

Stand top with encoded, 6x objective turret with objective screw-on thread M32 x 0.75 mm, incident light axis with encoded, motorized 4x reflector disk with 4 reflector positions, two reflectors (Smith, BF and DF) are permanently mounted. BF, ICR, POL as well as all fluorescence filter systems are adaptable as desired. With motorized, encoded aperture and field diaphragm, holders for two light filters on the slide bar.
Holders for incident light polarizers and analyzers and mechanical slot for light stop for protection of the pole filter. Interchangeable fitting for holding the cover for stand top or magnification changer. 11888778

Stand top DM4 M Cleanlisness Expert, 6x objective turret, 4x (RL)

like 11888778 11888781

Cover for objective turret (Fig. 21 p. 12) 11888105

integrated in the upper stand top 11888778.

Alternative:
Insert for DIC prisms in sliders (Fig. 22 p. 12) 11888187

Alternative:
Industry magnification changer, encoded (as in Fig. 25 p. 13)

Stand cover housing with magnification levels 1x; 1.5x; 2x with interchangeable surface for tube connection 11888789

Base plate with filter magazine for two light filters (Fig. 23 p. 12)

D = 32 mm 11888100

Alternative:
Baseplate without filter magazine (not pictured) 11888098

6" conversion kit for DM4/6 M

Upgrade KIT for 6" stages 11533653

Cover for objective turret (see Fig. 21 p. 12)
integrated in the upper part of stand 11888778 11888105

Alternative:
Insert for DIC prisms in sliders
(1 Fig. 29 p. 14) 11888187

Cover for stand top (Fig. 24 p. 13)
Stand cover housing with interchangeable surface for tube connection 11890003

Alternative:
Ind. magnification changer, encoded (Fig. 25 p. 13)
Stand cover housing with magnification levels 1x, 1.5x, 2x with interchangeable surface for tube connection 11888189

To cover the stands to protect them from dust:

Dust cover, large (not pictured)
For stand with photo/TV camera 11505171

Dust cover, small (not pictured)
For stand without photo/TV camera 11505168

Objective adapter M32/25, centerable (Fig. 26 p. 13)
Can be used in all instruments with M32 objective turret for POL applications 11556077

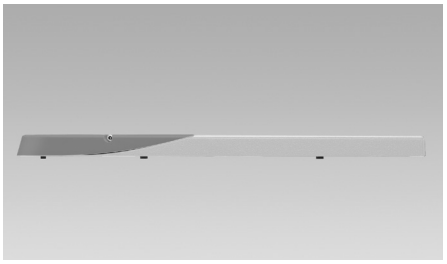


Fig. 24: Cover for stand top

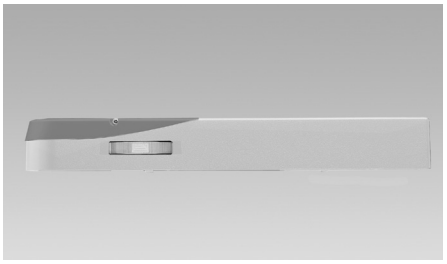


Fig. 25: Magnification changer Ind, encoded

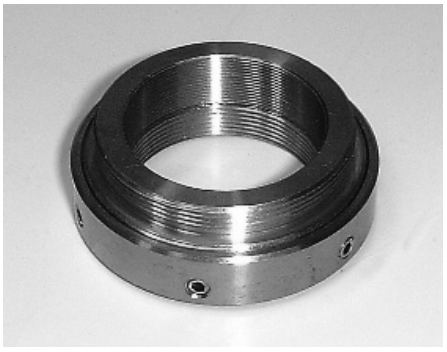


Fig. 26: Objective adapter M32/25, centerable

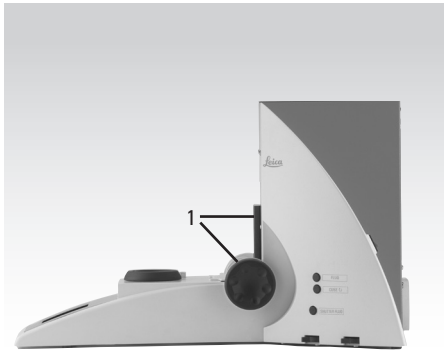


Fig. 27: Base stand Leica DM4 P with mechanical coaxial coarse/fine focus drive

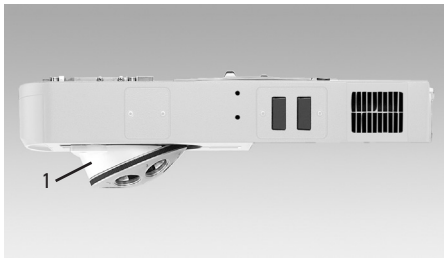


Fig. 28: Stand top Leica DM4 P

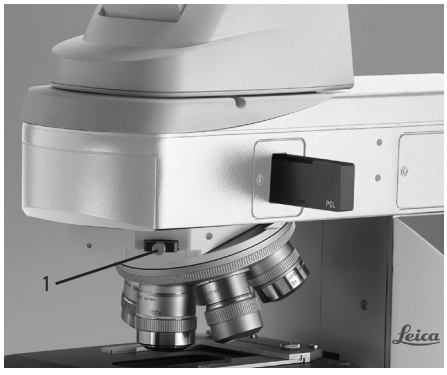


Fig. 29: Leica DM4 M with insert for DIC prisms in slide bars

LEICA DM4 P (IND. INCIDENT LIGHT/ TRANSMITTED LIGHT/POL) WITH LCD DISPLAY

The Leica DM4 P is a system microscope designed for the following incident and transmitted light methods:

Incident light:	Bright field, polarization contrast, interference contrast (ICR) and fluorescence
Transmitted light:	Bright field, dark field, phase contrast, polarization contrast, interference contrast (ICT) and conoscopy

Important routine functions such as adjusting the diaphragms, condenser, and luminous intensity to the objective magnification and specimen conditions are automated, providing optimum comfort while working.

Halogen illumination is only possible with external power supply, see page 35

The microscope stand can be custombuilt using the following equipment components:

Base stand Leica DM4 P (Fig. 27 p. 14)

consisting of stand base and stand column including transmitted light diaphragm module, function keys for motorized aperture/field diaphragm and intensity control, LCD display for displaying magnification level, diaphragm setting and light intensity. LED illumination for constant color temperature. USB 2.0 interface for connection to a PC including USB 2.0 cable, AC power supply: 90–250 V, 50–60 Hz. Including operating manual, sheets of adhesive labels for 6 function keys. 11888513

Mechanical coaxial coarse/fine focus drive (1 Fig. 27 p. 14)

Included in the base stand.

Base plate with filter magazine for two light filters

D = 32 mm 11888100

Alternative:
Base plate without filter magazine (not pictured) 11888098

Stand top DM4 P, 6x objective turret, 4x (RL) (Fig. 28 p. 14)

Stand top with encoded and centerable 6x objective turret with objective screw-on thread M25 x 0.75 mm, incident light axis with encoded and motorized 4x reflector disk with 4 reflector positions, two reflectors (Smith or BF and empty position for conoscopy) are permanently mounted. ICR, POL as well as all fluorescence filter systems can be engaged as desired. With motorized, encoded aperture and field diaphragm, holders for two light filters on the slide bar. Holders for incident light polarizers and analyzers. Interchangeable fitting for holding the tube optics. 11888515

Insert for DIC prisms in sliders or compensators (1 Fig. 29 p. 14) 11888187

Tube optics POL (1x, 1.6x)

Coded conoscopic module with quartz plate, iris diaphragm and focusable/centerable Bertrand lens, for conoscopic analyses. (smallest grain suppression 10 µm) 11888517

Stand top cover w. quartz plate DM4 P 11888516

LEICA DM6 M (IND. INCIDENT LIGHT) WITH LEICA SMARTTOUCH

The Leica DM6 M is a research system microscope designed for the following incident light methods: Bright field, dark field, polarization contrast, interference contrast (ICR), fluorescence.
This stand is designed for incident light only. The Leica DM6 M TL + IL stand (see p. 19) is available for incident and transmitted light.
Important routine functions such as adjusting the intensity and incident light diaphragms to the objective magnification and specimen conditions are automated, providing optimum comfort while working.

Halogen illumination is only possible with external power supply, see page 35

The microscope stand can be custom-built using the following equipment components:

Base Stand Leica DM6 M (Fig. 30 p. 15)

consisting of stand base and stand column. Function keys for intensity control, aperture and field diaphragm control. Touch panel for setting and changing the contrast method, the objectives of the motorized MBDT tube. Display of magnification, diaphragm position, light intensity and IC prism setting. Interface for the external electronics housing (CTR compact / CTR advanced) for lamp supply, as well as USB 2.0 interface and supply of the motorized stand functions. Including operating manual, 2 sheets of adhesive labels for 10 function keys.

Motorized coaxial coarse/fine focus drive (1 Fig. 30 p. 15) 11889191

Included in the base stand. Consisting of drive guide housing with guide plate for interchangeable stages, with coarse and fine focusing knobs with micrometer increments for fine drive.

Z stroke, total:	25 mm
Step size (min. increment):	3.8 nm
Max. speed:	5 mm/sec.
Max. load:	4 kg
Total stage stroke:	45–50 mm depending on condenser type
Total stage stroke:	80 mm when using stage MU (Fig. 48 p. 22)

Mechanical coaxial coarse/fine focus drive (1 Fig. 19 p. 11) 11889192

Included in the base stand. Consisting of drive guide housing with guide plate for interchangeable stages, with coaxial coarse and fine focusing knobs with micrometer increments for fine drive. The focussing dial for right-hand operation is flat and designed with finger depressions so that the focus and stage drive may be operated at the same time. This dial affects the fine drive only.

Z stroke coarse and fine drive, total:	25 mm
Z stroke fine drive:	0.2 mm per turn of the knob(1 scale interval = 2 µm).
Z stroke coarse drive:	3.5 mm per turn of the knob
Total stage stroke:	45–50 mm depending on condenser type
Overall stage stroke:	80 mm when using the specimen stage MU (Fig. 48 p. 22)

Base plate without filter magazine (not pictured) 11888098

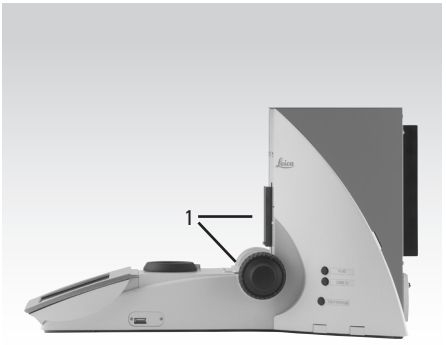


Fig. 30: Base stand Leica DM6 M with motorized coaxial coarse/fine focus drive

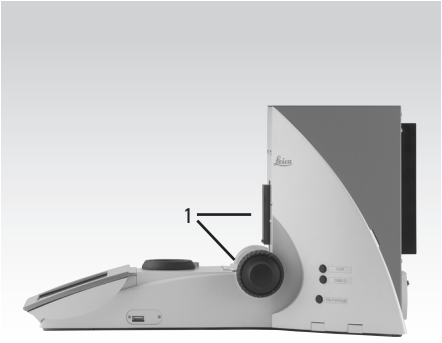


Fig. 31: Base stand Leica DM6 M with motorized coaxial coarse/fine focus drive

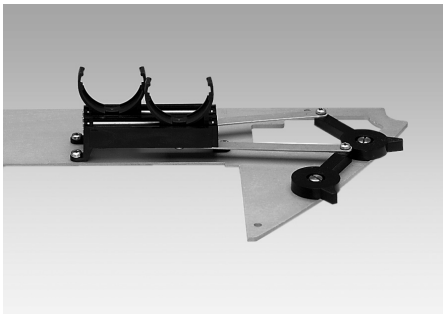


Fig. 32: Base plate with filter magazine for two light filters

LEICA DM6 M (IND. INCIDENT LIGHT/ TRANSMITTED LIGHT) WITH LEICA SMARTTOUCH

The Leica DM6 M is a research-class system microscope for the following incident and transmitted light methods:

Incident light:	Bright field, dark field, polarization contrast, interference contrast (ICR), fluorescence,
Transmitted light:	Bright field, dark field, phase contrast, polarization contrast, interference contrast (ICT).

Important routine functions, such as adapting diaphragms, condenser, and intensity to the objective magnification and specimen conditions are automated, providing optimum comfort while working.

Halogen illumination is only possible with external power supply, see page 35

The microscope stand can be custom-built using the following equipment components:

Leica DM6 M base stand (Fig. 31 p. 16)

consisting of stand base and stand column. Function keys for intensity control, aperture and field diaphragm control. Touch panel for setting and changing the contrast method, the objectives of the motorized MBDT tube. Display of magnification, diaphragm position, light intensity and IC prism setting. Interface for the external electronics housing (CTR compact / CTR advanced) for lamp supply, as well as USB 2.0 interface and supply of the motorized stand functions. Including operating manual, 2 sheets of adhesive labels for 10 function keys.

Motorized coaxial coarse/fine focus drive (see 1 Fig. 31 p. 16) 11889193

Included in the base stand. Consisting of drive guide housing with guide plate for interchangeable stages, with fine focusing knobs and micrometer increments for the fine drive.

Z stroke, total:	25 mm
Step size (min. increment):	3.8 nm
Max. speed:	5 mm/sec.
Max. load:	4 kg
Total stage stroke:	45–50 mm depending on condenser type
Total stage stroke:	80 mm when using stage MU (Fig. 48 p. 22)

Mechanical coaxial coarse/fine focus drive (1 Fig. 19 p. 11) 11889194

Included in the base stand. Consisting of drive guide housing with guide plate for interchangeable stages, with coaxial coarse and fine focusing knobs with micrometer increments for fine drive. The focussing dial for right-hand operation is flat and designed with finger depressions so that the focus and stage drive may be operated at the same time. This dial affects the fine drive only.

Z stroke coarse and fine drive, total:	25 mm
Z stroke fine drive:	0.2 mm per turn of the knob(1 scale interval = 2 µm).
Z stroke coarse drive:	3.5 mm per turn of the knob
Total stage stroke:	45–50 mm depending on condenser type
Overall stage stroke:	80 mm when using the specimen stage MU (Fig. 48 p. 22)

Base plate with filter magazine for two light filters (Fig. 32 p. 16)

D = 32 mm 11 888 100

Alternative:
Baseplate without filter magazine (not pictured) 11 888 098

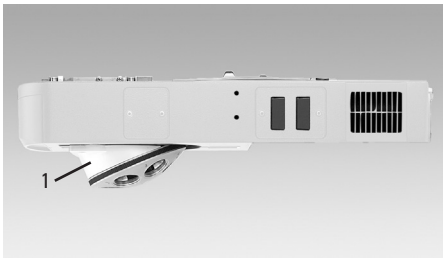


Fig. 33: Stand top Leica DM6 M

Stand top DM6 M, 6x M32, Mot. objective turret, 4x (RL) (Fig. 33 p. 17)

Stand top with encoded, motorized 6x objective turret with objective screw-on thread M32 x 0.75 mm, incident light axis with encoded, motorized 4x reflector disk with 4 reflector positions, two reflectors (Smith, BF and DF) are permanently mounted. An additional ICR reflector as well as all fluorescence filter systems are adaptable as desired. With motorized, encoded aperture and field diaphragm, holders for two light filters on the slide bar. Holders for incident light polarizers and analyzers. Interchangeable fitting for holding the cover for stand top or magnification changer. 11889213

Stand top DM6 M, 6x M32, Cod. objective turret, 4x (RL)

Like 11889213 but encoded 6x objective turret with objective screw-on thread M32 x 0.75 mm 11889214

Stand top DM6 M Cleanliness Expert
6x M32, Mot. objective turret, 4x (RL)

Like 11889213 but with additional polarizing element on one field diaphragm position 11889215

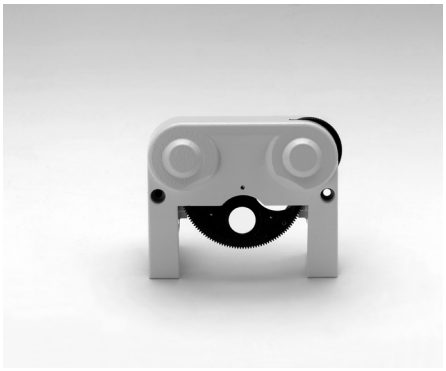


Fig. 34: DIC prism disk, 4x motorized, encoded

Stand top DM6 M, 7x M25, Mot. objective turret, 5x (RL)

Similar to 11889213 but encoded 7x objective turret with objective screw-on thread M25 x 0.75 mm and for variable reflectors only 11889216

Alternative:
DIC prism disk, 4x motorized, encoded (Fig. 34 p. 17)

For up to 3 objective prisms and 1 blank, including knurled disk for fine contrast adjustment. Installed in objective turret on upper part of stand. 11555071

Cover for objective turret (1 Fig. 33 p. 17)

integrated in the upper part of stand 11 888 697 11888105

Electronics box CTR Boxes (Fig. 14 p. 9)

With built-in power supply for LED lamp housings and for control of the automatic microscope functions. Including USB 2.0 cable.
AC power supply 90–250 V, 50–60 Hz

Leica CTR compact

For all Leica DM6 stands without motorized stages, 11525206

Leica CTR compact XY (Fig. 35 p. 17)

Preconfigured with the control board for a motor and scanning stage.
For motor stages the adapter cable 11505237 (Adapter XY-basic/XY-advanced) must be added. The box has no further slots to add additional control boards!
11525227

Fig. 35: Leica CTR compact XY

Fig. 37: Leica CTR advanced

Leica CTR advanced (Fig. 37 p.18)

For all Leica DM6 stands with 1 Master-Module incl. 1x serial, 2x USB, 3 x I²C, upgradable with 6x CTR boards for motorized stages, for high-speed sequencer 11525207

CTR board XY basic

CTR Board xy basic,15 pins, to control motor stages (rack and pinion) 11525210

CTR board XY advanced

CTR Board xy advanced, 25 pins, to control Scanning stages 11525226

Adapter XY-basic / XY advanced (Adapter cable 15/25 pins)

When using a motor stage in combination with CTR Board xy advanced, 25 pins (11525226), CTR compact XY (11525227) or CTR advanced (11525207) 11505237

Cable scanningstage, XY-adv. board

When using a scanning stage in combination with CTR Board xy advanced, 25 pins (11525226), CTR compact XY (11525227) or CTR advanced (11525207) 11525218

Sequencer Advanced 11525228

Fig. 36: Leica STP8000

Leica SmartMove I²C (Fig. 16 p. 9)

XYZ-Ergo control panel for electronic focus (z) and motor stage (xy). With 4 freely programmable function keys. 11525232

Alternative:
Leica STP8000 Smart Touch Panel (Fig. 36 p.18)

XYZ-Ergo control panel with integrated Touch Screen and 11 freely programmable function keys. 11525231

Cover for stand top (Fig. 24 p. 13)

Stand cover housing with interchangeable surface for tube connection 11890003

Alternative:
Industry magnification changer, encoded (as in Fig. 25 p. 13)

Stand cover housing with magnification levels 1x; 1.5x; 2x with interchangeable surface for tube connection 11888642

Dust cover (not pictured)

For stand with photo/TV camera 11505171
For stand without photo/TV camera 11505168

Combination matrix of the stand components

		DM4 B TL	DM4 B TL + FLUO	DM6 B TL	DM6 B TL + FLUO	DM4 M RL	DM4 M RL + TL	DM4 P RL + TL	DM6 M RL	DM6 M RL + TL
Base stand DM4 B IVD	11888858	x	x							
Base stand DM4 B RUO	11888866	x	x							
Base stand DM6 B IVD LED man. Z	11889189			x	x					
Base stand DM6 B IVD LED mot. Z	11889188			x	x					
Base stand DM6 B RUO LED man. Z	11889187			x	x					
Base stand DM6 B RUO LED mot. Z	11889186			x	x					
Base stand DM4 M RL	11888774					x				
Base stand DM4 M RL/TL	11888775						x			
Base stand DM4 P	11888513							x		
Base stand DM6 M LED RL man. Z	11889192								x	
Base stand DM6 M LED RL mot. Z	11889191								x	
Base stand DM6 M LED RL/TL man. Z	11889194									x
Base stand DM6 M LED RL/TL mot. Z	11889193									x
Base plate with filter magazine	11888100	x	x	x	x		x	x		x
Base plate without filter magazine	11888098	(x) (alternative for 11888100)	(x) (alternative for 11888100)	(x) (alternative for 11888100)	(x) (alternative for 11888100)	x	(x) (alternative for 11888100)	(x) (alternative for 11888100)	x	(x) (alternative for 11888100)
Stand top DM4 B, 6x M25, without Fluo	11888885			x						
Stand top DM4 B, 6x M25, 5x Fluo	11888882				x					
Stand top DM4 B, 7x M25, without Fluo	11888883			x						
Stand top DM4 B, 7x M25, 5x Fluo	11888884				x					
Stand top DM6 B, 7x M25, without Fluo	11888892			x						
Stand top DM6 B, 7x M25, 5x Fluo	11889202				x					
Stand top DM6 B, 7x M25, 8x Fluo	11889203				x					
Stand top DM6 B, 7x M25, 8x Fluo mit IFW/Ex Man.	11889206 o. 11889207				x					
Stand top DM4 M, 6x M32, 4x for Cleanliness Expert	11888778 o. 11888781					x	x			
Stand top DM4 P, 6x M25, 4x	11888515							x		
Stand top DM6 M, 6x M32 mot. , 4x	11889213								x	x
Stand top DM6 M, 6x M32 cod. , 4x	11889214								x	x
Stand top DM6 M, 7x M25 cod. , 4x	11889216								x	x
Stand top DM6 M Cleanliness Expert, 6x M32 mot. 4x	11889215								x	x
Cover for objective turret	11888105	x	x	x	x	x	x	x	x	x
Insert for DIC prisms DM4 B/M/P	11888187	(x) (alternative for Obj.-turret cover)	(x) (alternative for Obj.-turret cover)			(x) (alternative for Obj.-turret cover)	(x) (alternative for Obj.-turret cover)	(x) (alternative for Obj.-turret cover)		
DIC disk motorized, encoded	11555071				(x) (alternative for Obj.-turret cover)				(x) (alternative for Obj.-turret cover)	(x) (alternative for Obj.-turret cover)
Cover for stand top	11890003	x	x	x	x	x	x		x	x
Magnification changer Bio, encoded	11890004	(x) (alternative for 11890003)	(x) (alternative for 11890003)	(x) (alternative for 11890003)	(x) (alternative for 11890003)					
Magnification changer Ind, encoded	11888789					(x) (alternative for 11890003)	(x) (alternative for 11890003)		(x) (alternative for 11890003)	(x) (alternative for 11890003)
Tube optics DM4 P	11888503							x		
Leica CTR compact	11525206			x	x				x	x
Leica CTR compact XY	11525227			x	x				x	x
Leica CTR advanced	11525207			x	x				x	x

Fig. 38: Leica DM4 B stand with 6x
Objective turret M25 x 0.75 mm

Fig. 39: Leica DM4 M stand with 6x
Objective turret M32 x 0.75 mm

Fig. 40: Leica DM4 B stand with 7x
Objective turret M25 x 0.75 mm

Fig. 41: Leica DM4 P stand with 6x
centerable objective turret M25 x 0.75 mm

OBJECTIVE TURRET

All stands for microscopes from the Leica DM4 series have a permanently mounted, encoded objective turret. The objective turret is an integrated component of the stand top. With encoding, the system automatically recognizes the objective in the beam path and automatically sets the learned luminous intensity, the aperture and field diaphragm, as well as the condenser head position for the selected contrast method. Stands of the Leica DM6 series have permanently mounted, encoded and motorized objective turrets.
The following objective turrets are available:

Leica DM4 B 6xM25 stand (Fig. 38 p. 20)

Objective turret 6x encoded, objective thread M25 x 0.75 mm (for bright field objectives)

Leica DM4 M 6x M32 stand (Fig. 39 p. 20)

Objective turret 6x, encoded, objective thread M32 x 0.75 mm (for bright/dark field objectives (BD) and bright field objectives with spacer ring), optionally with front cover or compensator holder with 6 x 20 mm tube slot for compensator slider or DIC prism slider

Leica DM4 B 7xM25 stand (Fig. 40 p. 20)

Objective turret 7x, encoded, objective thread M25 x 0.75 mm (for bright field objectives), optionally with front cover or with motorized and encoded DIC prism disk, 4x for 3 DIC prisms.

Leica DM4 P stand (Fig. 41 p. 20)

Objective turret 6x, encoded and centerable, objective thread M25 x 0.75 mm (for bright field objectives), optionally with front cover or compensator holder with 6 x 20 mm tube slot for compensator slider or DIC prism slider.

Leica DM6 B stand (not pictured)

Objective turret 7x, encoded, motorized, objective thread M25 x 0.75 mm (for bright field objectives), optionally with front cover or with motorized and encoded DIC prism disk, 4x for 3 DIC prisms.

Leica DM6 M stand (not pictured)

Objective turret 6x, encoded, motorized, objective thread M32 x 0.75 mm (for bright-dark field objectives (BD) and bright field objectives with spacer ring), optionally with front cover or with motorized and encoded DIC prism disk, 4x for 3 DIC prisms

Leica DM6 M 7xM25 stand (not pictured)

Objective turret 7x, encoded, motorized, objective thread M25x0.75 mm (for bright field objectives), optionally with front cover or with motorized and encoded DIC prism disk, 4x for 3 DIC prisms.

STAGES AND SPECIMEN HOLDERS

All stages are equipped with stage brackets. The adjustments are made at the dovetail guide of the microscope.
This also allows you to adjust the stage height mechanically independent of the drive movement. On mechanical stages, the x stage motion is controlled by a closed cable drive without a rack.
The stage without protruding rack offers improved handling and eliminates the risk of injury. The closed construction guarantees a long, maintenance-free, life.

STAGE-BRC 7625 (Fig. 42 p. 21)

Cross-stage with ceramic-coated stage plate 188 x 153 mm with 110° rotation, 50 x 30 mm mid-position opening at rear, adjustment range 76 x 25 mm, right-hand operation with long (140 mm) telescoping double connecting rod with separate torque setting for x and y movement. With stage bracket and condenser holder. Without slide holder. The stage is designed for single-hand slide holders for one specimen 11505156. 11501256

STAGE-BEC 7650 (as in Fig. 43 p. 21, but without rotation)

Cross-stage with ceramic-coated stage plate 188 x 153 mm without rotation, long central mid-position opening 82 x 30 mm front, adjustment range 76 x 50 mm, right-hand operation with long (140 mm) telescoping double connecting rod with separate torque setting for x and y movement. With stage bracket and condenser holder. Without slide holder. The stage is designed for Ergo slide holders for one specimen 11505163. With this slide holder, the double connecting rod is closer to the focus drive knob, allowing simultaneous, ergonomic operation of stage and focus. 11501233

STAGE-BRCL 7625 (not pictured)

Cross-stage such as 11501256, but for left-handed use.
The stage is designed for single-hand slide holders for 1 specimen 11505187. 11501258

STAGE-BRC 7650 (Fig. 43 p. 21)

Cross-stage with ceramic-coated stage plate 188 x 153 mm with 110° rotation, long central mid-position opening 82 x 30 mm, adjustment range 76 x 50 mm, right-hand operation with long (140 mm) telescoping double connecting rod with separate torque setting for x and y movement. With stage bracket and condenser holder. Without slide holder. The stage is designed for plug-in slide holders for two specimens for oil immersion (11505157). The slide holders 11505163 and 11505156 can also be used here. 11501257

Ergonomic slide holder for one specimen (Fig. 43 p. 21)

With spring clips for clamping the front side of the specimen, for simultaneous right-handed stage and focus adjustment. Particularly suited for cross-stages 11501233 and 11501257.

11505163

Universal Holding frame A (Fig. 44 p. 21)

Frame to fix different cultivation vessels and slides. Two smooth running moveable brackets with a variable clamping range allow an easy and quick fixation of the vessel. (for mechanical cross-stages 11501257 and 11501233 and Motorized Stage with int. controller 11501261) 11501268

Fig. 42: STAGE-BRC 7625 with 110° rotation

Fig. 43: STAGE-BRC 7650 with 110° rotation and Ergonomic slide holder for one specimen

Fig. 44: Universal Holding frame A

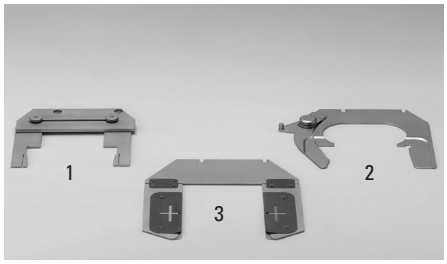


Fig. 45: Slide Holder


Fig. 46: Specimen holder, multifunctional

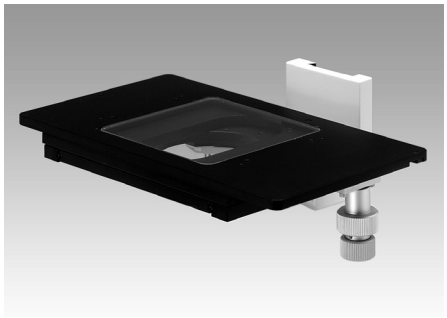


Fig. 47: STAGE-M 102102 with glass stage plate

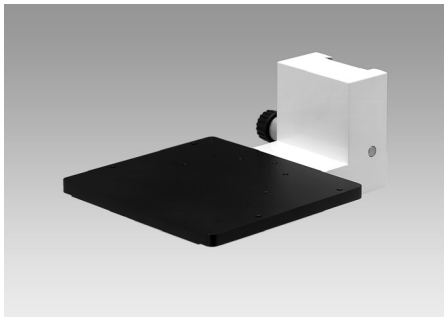


Fig. 48: STAGE-MU with reversed stage bracket

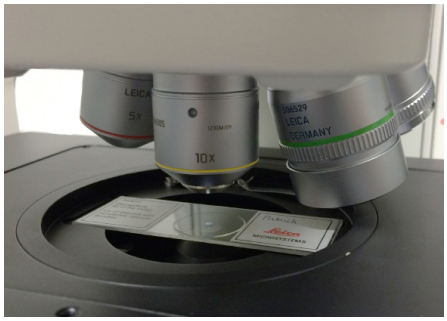


Fig. 49: Stage insert with slide holder for one slide, rotatable, for Scanning Stage 100x100

Plug-in slide holder for 2 specimens (3 Fig. 45 p. 22)

For insertion of up to two specimens in a slide adapter. Particularly suited for holding specimens firmly for oil immersion. 11505157

Single-hand slide holder for one specimen (not pictured)

Right-hand operation. Particularly suited for cross-stages 11501258. 11505187

Single-hand slide holder for one specimen (2 Fig. 45 p. 22) 11505156

Specimen holder, multifunctional (Fig. 46 p. 22)

Suited for cross-stages 11501256 and 11501257 11505254

STAGE-M 102102 (Fig. 47 p. 22)

Cross-stage for incident light and transmitted light. Stage 152 x 268 mm with glass stage plate 116 x 116 mm, adjustment range 102 x 102 mm (4 x 4") in incident light (102 x 80 mm transmitted light), right-hand operation with short telescoping double connecting rod. With stage bracket and condenser holder (condenser head S15 11501037). The upper stage plate is freely maneuverable and can be used for examining wafers, optical washers, disks, printed circuit boards and large-surface structural parts using the incident-light method. 11561091

STAGE-MU (Fig. 48 p. 22)

Single stage plate 150 x 160 mm with reversed stage bracket. Up to 80 mm specimen height for holding large specimens and tall components. With M4 drill holes for Leica heating stages. Without slide holder. 11561093

xy slide holder for Stage MU (not pictured)

for large specimens, Travel range: 60 x 50 mm, Resolution: 0.1 mm
Specimen height: approx. 75 mm 11532329

Slide holder, metal (1 Fig. 45 p. 22)

With retaining clips (adjustable on both sides) for heavy specimens. 11561089

6 metal slides 75 x 32 mm (1 Fig. 51 p. 23)

for holding incident light polished specimens firmly. 11563015

Incident light attachable mechanical stage plate 110 x 126 mm

(2 Fig. 51 p. 23) With spring clamps for holding wafers, masks, disks directly. Travel range: 75 x 50 mm. 11561094

Hand press (Fig. 52 p. 23)

With adjustable stop for pressing and orienting incident light polished specimens 11563036

Stage carrier with condenser holder (not pictured)

For holding external stages (Märzhäuser, Prior etc.). 11501241

Mot. Stage EK 14, 76x52 (Fig. 50 p. 23)

Motorized cross-stage with step motor with tabletop 234 x 157 mm. Adjustment range 76 x 50 mm. Operation with SmartMove/STP8000 or Leica software. With stage bracket and condenser holder. Without slide holder. The stage is suitable for the bio/med and materials sectors. The slide holders 11505181 (1 specimen) and 11505182 (2 specimens) are designed for the bio/med sector. The slide holder 11561053 is intended for the materials sector. 11501274

Single-hand slide holder for one specimen (Fig. 53 p. 23)
Only suitable for motorized cross-stage 11501274. 11505181

Plug-in slide holder for two specimens (not pictured)
For insertion of up to two specimens in a slide adapter. Particularly suited for holding specimens firmly for oil immersion. Only suitable for motorized cross-stage 11501274. 11505182

Slide holder, metal (not pictured)
with retaining clips (adjustable on both sides) for heavy objects Only suitable for motorized cross-stage 11501274. 11561053

Scanning stage 100 x 100 mot., S 2 mm (not pictured)
With stage bracket and condenser holder. Stage opening: 160 x 116 mm for special retaining frames, travel range: 100 x 100 mm, screw pitch: 2 mm, resolution: 0.01 µm, accuracy: ± 3 µm, repeatability: < 1 µm. Operation with SmartMove/STP8000 or Leica Software. The stage is suitable for the bio/med and materials sector. The BF (11505321), PH (11505320) and DIC (11505319) condensers can be used with this stage. 11501260

Scanning stage 100 x 100 mot., S 2 mm, BF only (not pictured)
With stage bracket and condenser holder. Stage opening: 160 x 116 mm for special retaining frames, travel range: 100 x 100 mm, screw pitch: 2 mm, resolution: 0.01 µm, accuracy: ± 3 µm, repeatability: < 1 µm. Operation with SmartMove/STP8000 or Leica Software. The stage is suitable for the bio/med and materials sector. This stage has extra brackets which block the DIC/PH condenser. Only the BF condenser (11505321) can be paired with this stage. 11501280

Glas plate 160 x 116 x 4 mm 11600183

Stage insert for glas slides 3 x 2“ 11501262

Universal mounting frame AK
for fixation of various cell cultivation vessels on the Scanning Stage 100x100 (order number 11501260) with an opening of 160x116 mm 11501270

Stage insert 160x116 mm for one slide (Fig. 49 p. 22)
with rotatable slide holder. For Scanning Stage 100x100 (11501260) 11533113

Stage insert, metal 160 x 116 mm 11532502

Stage insert for slide holders 70 x 70 mm
to scanning stage 11 501 260. 11600185

Universal Multi-sample holder for Metallography **11533111**

Stage insert for Multi-sample holder to scanning stage 11501260 **11501280**

Scanning stage 130 x 85 for 4 slides, S 4 mm (not pictured)
Travel range: 130 x 85 mm, repeatability: < 1 µm, accuracy: ± 3 µm, resolution: 0,01 µm (smallest step size), maximum travel speed: 240 mm/s, with 4 mm lead screw pitch. With stage bracket and condenser holder 11501263

Stage insert for 4 slides for stage 130 x 85 11501264

Stage insert for multi well plate for stage 130 x 85 11501267

Metal insert for stage 130 x 85 11561099

Glass insert for stage 130 x 85 11561100

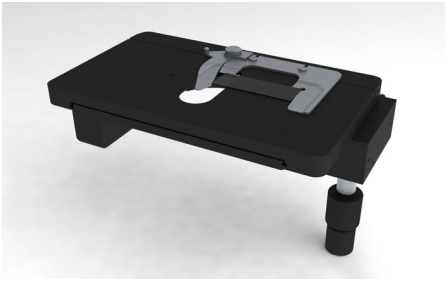


Fig. 50: Mot. Stage EK 14, 76x52

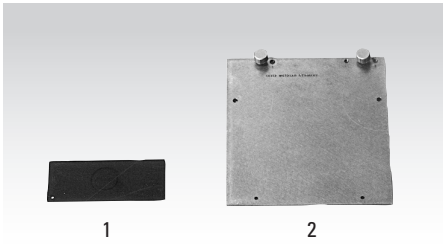


Fig. 51: Slide

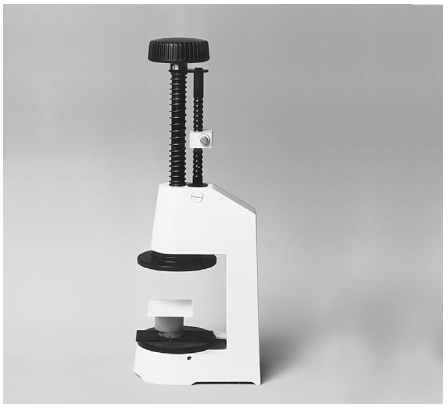


Fig. 52: Hand press

Fig. 53: Single-hand slide holder for one specimen

Fig. 54: POL rotating stage 360°

Fig. 55: POL rotating stage 360°

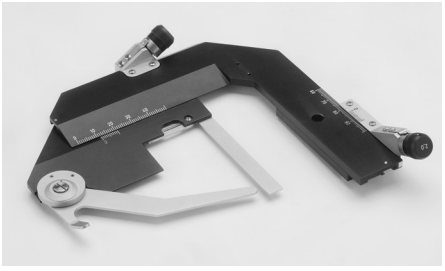


Fig. 56: Attachable mechanical stage POL

Fig. 57: Stage LMT250-F

Fig. 58: Condenser BF (bright field)

Fig. 59: Condenser heads

Scanning stage for 8 slides, S 4mm (Fig. 55 p. 24)
Travel range: 225 x 76 mm, repeatability: < 1 µm, accuracy: ± 3 µm, resolution: 0,01 µm (smallest step size), maximum travel speed: 240 mm/s, with 4 mm lead screw pitch. With stage bracket and condenser holder. 11501265

Stage insert for 8 slides 11501266

Stage insert for 2 Universal Sample Holder for Metallography for scanning stage for 8 slides 11533109

Motorized Stage 75 x 50 with integrated controller (not pictured)
Including object holder for 1 slide 76 x 26 mm (3" x 1 "), travel range: max. 76 x 52 mm (3" x 2"); repeatability: < 1 µm, accuracy: ± 3 µm, resolution: 0,05 µm (smallest step size); maximum travel speed: 120 mm/s, with integrated measuring system. With stage bracket and condenser holder. 11501261

LMT250-F Scanning stage Ultra for DM4/6 B (Fig. 57 p. 24)
Ultra-precise, silent, high speed scanning stage with integrated controller. Includes stage insert for up to 4 slides. Also includes an adapter insert for converting 160 x 110 mm stage inserts (11600234, 11533187, 11532514, etc) to the LMT 250-f format. Travel range: 120 x 80 mm. Including Multiwheel XYZ for remote control of X-Y scanning stage and motorized Z-focus drive, with programmable function keys, and SP-Box. With stage bracket and condenser holder. Resolution: 5 nm, Accuracy: +/-1µm, repeatabilty: < +/- 0,25 µm 11501278

POL rotating stage 360° (Fig. 54 p. 24)
interchangeable, with ball bearings, lockable rotation, D=178mm with 2 verniers 0.1° and stage bracket, also with 45° click stop for quickly setting illumination positions. For condensers BF, PH and DIC 11551077

POL rotating stage 360° (Fig. 54 p. 24)
interchangeable, with ball bearings, lockable rotation, D=178mm with 2 verniers 0.1° and stage bracket, without 45° click stop. For condenser BF only 11551074

Accessories for Pol rotating stages: **Stage clip**, 2 pieces required 11553408
Or:
Attachable mechanical stage Pol, made of light metal,
(Fig. 56 p. 24)
with interchangeable lock buttons 0.1; 0.3; 0.4; 1.0 and 2.0 mm, range of movement approx. 30 x 40 mm, for various glass slide sizes up to 50 x 50 and 26 x 76 mm 11553520

Or:
Attachable mechanical stage Pol, w/o point counting 13613661

TRANSMITTED LIGHT ILLUMINATION, BF, PH-DF-ICT-POL, LIGHT FILTERS, CONDENSERS

The transmitted light illumination system is based on a commercially available 12 V 100 W halogen bulb, the luminous intensity of which is automatically adjusted to the preset value based on the density of the specimen and the light stream in the objective. The adjustment is color-neutral, i.e. the color temperature remains constant.

Focusing telescope (Fig. 61 p. 25)
For equal coverage adjustment of light and phase ring, and control of the compensation strip for ICT. 11505070

Transmitted light–bright field

The encoded objective turret recognizes the objective currently being used, and automatically adjusts the luminous intensity, and aperture and field diaphragm to preset values. The condenser head automatically swings in and out as necessary. The user can adjust and overwrite the preset values at any time.

Required components:
Condenser BF (bright field) (Fig. 58 p. 24)

for switching motorized condenser head on and off, Köhler illumination for objectives 1.25x–100x for bright field and polarization contrast. 11505321

Condenser head 0.90 S1 1 Fig. 59 p. 24

Focal intercept 1 mm, low-strain for bright field and polarization contrast 11505150

Transmitted light – bright field, phase contrast and dark field

The encoded objective turret recognizes the objective. The motorized 7x condenser disk automatically places the correct light ring for phase contrast or dark field into the beam path. At the same time, the luminous intensity, aperture and field diaphragm are automatically adjusted to the required values. The condenser head automatically swings in and out as necessary.
The user can adjust and overwrite the preset values at any time.

Condenser PH (Fig. 60. p. 25)

for motorized switching on and off of the condenser head. With motorized 7x condenser disk with the following equipment options (Fig. 59 p. 25): 1 bright field opening, 1 dark field ring, up to 4 PH light rings. Köhler illumination for objectives 1.25x–100x 11505320

Condenser head 0.90 S1 (1 Fig. 59 p. 24)

Focal intercept 1 mm, low-strain for bright field and polarization contrast 11505150

DF light ring set, PH 1/1/2/3 (not pictured)

only suitable for Condenser head 0.90 S1 (see above), with 4 PH light rings and 1 DF for phase contrast and dark field, 2 x light ring 1 for N PLAN 20x and 40x (1x for large ICT bore). (DF possible from 10x objective on) 11505176

Pathology solutions

(For condenser turret)
Patho diffusor plate for 1,25x-5x objectives 11505216
Auxilliary lens for 5x objective 11505222

Special condenser heads for condensers listed above

Not suitable for combination with DF light ring set, Ph 1/1/2/3 (see above)

- Condenser head P 1.40 OIL S1 (2 Fig. 59 p. 24)
  Achromatic, extremely low-strain, for polarization and maximum microscopic resolution, focal intercept 1 mm. 11551004
- Condenser head 0.50 S 15 (3 Fig. 59 p. 24)
  Large focal intercept 15 mm for thick slides and heating stage examinations, low-strain 11501037

Light ring PH1/S 15 (not pictured) 11505113

Fig. 60: Condenser PH

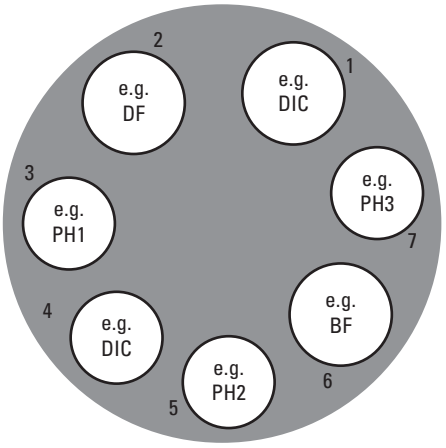


Fig. 61: Equipment option of the condenser disk

Fig. 62: Condenser PH

Fig. 63: Focusing telescope

Fig. 64: Special dark field condenser heads

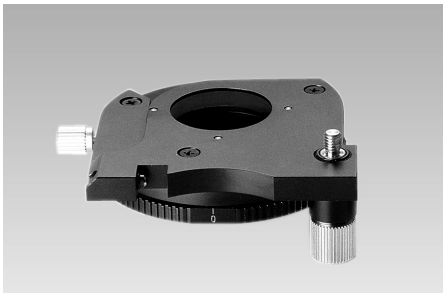


Fig. 65: Polarizer DM ICT/P

Fig. 66: Polarizer in holder D = 32 mm

Fig. 67: Analyzer ICT/P

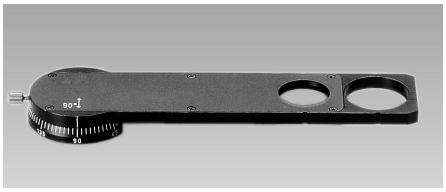


Fig. 68: Analyzer IC/P, 180°

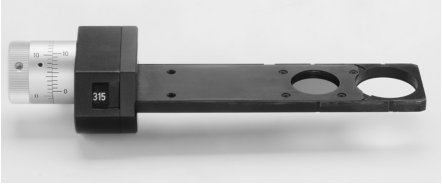


Fig. 69: Analyzer 360°

Transmitted light–dark field with special dark field condenser

Dark-field mirror condensers allow increased dark field quality as opposed to normal condensers with ring diaphragms. (from 20x objectives on)

Required:
Sub-condenser (1 Fig. 64 p. 26) 11505075

Dry dark field head D 0.80–0.95 (2 Fig. 64 p. 26) 11505152

Immersion dark field head D 1.20–1.44 (3 Fig. 64 p. 26) 11505153

Transmitted light–polarization contrast

For transmitted light polarization contrast, a revolving polarizer and an analyzer (fixed or rotating) are required. In addition to this basic equipment, we also recommend fixed compensators such as lambda or lambda/4 plates for better contrasting of specimens with small path differences. The lambda plates are placed between the polarizer and analyzer. Low-strain objectives and condenser lenses increase the quality of the polarization contrast.

Required:
Polarizer DM ICT/P (Fig. 65 p. 26)

Fastened using a knurled screw underneath the condenser. Can be swung in and out. Rotatable by 360° with display of the polarization direction 0° (east-west) and 90° (north-south). With slot for compensators (lambda plates) in holder D = 32 mm.
11555077

Alternative:
Polarizer in holder D = 32 mm (Fig. 66 p. 26)

- without heat-absorbing filter 11505087
- with heat-absorbing filter 11513711

Simple solution for attachment to the field lens in the stand base.

Analyzer ICT/P (Fig. 67 p. 26)

In slide bar 30 x 5 mm, fixed orientation 90° (north-south)
11555045

Alternative:
Analyzer IC/P, 180° (Fig. 68 p. 26)

In slide bar 30 x 5 mm, revolving from 0°–180° with drum head graduation, 1 scale interval = 5°.
(not applicable for stand top with 8 position filter turret) 11555079

Analyzer 360° Fig. 69 p. 26

in slide bar 30 x 5 mm, revolving, with vernier 0.1
(not applicable for stand top with 8 position filter turret) 11555080

Alternative:
Analyzer for stands with incident light fluorescence axis:
Analyzer block (Fig. 70 p. 27)

This analyzer is built into an empty fluorescence filter block and can be swung into the beam path using a motorized reflector disk. The swing direction is fixed at 0° (east-west) 11513900

Lambda plate with holder (Fig. 71 p. 27) 11513908

For insertion in polarizer ICT/P

Lambda/4 plate with holder (Fig. 71 p. 27)

For insertion in polarizer ICT/P 11513570

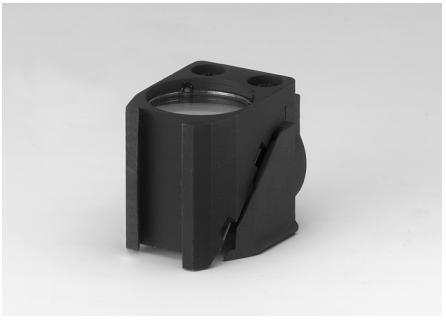


Fig. 70: Analyzer block

Fig. 71: Lambda/4 plate inserted into polarizer ICT/P

Transmitted light–interference contrast

For transmitted light interference contrast, the Leica DM6 B offers fully automated DIC with additional motorized functions of polarizer, analyzer, objective and condenser prisms. The encoded objective turret recognizes the objective being used. The motorized 7x condenser disk automatically sets the correct condenser prism into the beam path. At the same time, the polarizer and analyzer and – in the case of the Leica DM6 B – the corresponding objective prisms are automatically brought into the beam path. At the same time, the luminous intensity, aperture and field diaphragm are automatically adjusted to the required values. The condenser head automatically swings in and out as necessary. The user can adjust and overwrite the preset values at any time.
Leica DM4 B can be optionally equipped with a mechanical slot for DIC prism slider (11888187). Together with motorized DIC condenser (incl. motorized polarizer and condenser prisms) and motorized analyser this allows the user to perform a semi-automated DIC with Leica DM4 B.

Required:
Condenser DIC (as in Fig. 58 p. 25)

for motorized switching on and off of the condenser head. With motorized 7x condenser disk with the following equipment options: 1 bright field opening, 1 dark field ring, up to 4 DIC prisms or up to 4 PH light rings (Fig. 59 p. 25)
Köhler illumination for objectives 1.25x–100x, additional motorized polarizer. 11505319

Condenser head 0.90 S1 (1 Fig. 57 p. 24)

Focal intercept 1 mm, low-strain for bright field and polarization contrast 11505150

Analyzer block (Fig. 68 p. 27)

This analyzer is built into an empty fluorescence filter block and can be swung into the beam path using a motorized reflector disk.
The swing direction is fixed at 0° (east-west).
The analyzer block is required for the automatic, motorized ICT and Pol of the Leica DM6 B. 11513900

Fig. 72: Transmitted light filter

ICT condenser prisms

For installation in 7x condenser disk of the condenser 11505319.
Please consult the objective list for making your selection.

- ICT condenser prism K2 11555016
- ICT condenser prism K3 11555017
- ICT condenser prism K4 11555018
- ICT condenser prism K5 11555019
- ICT condenser prism K9 11555030
- ICT condenser prism K 1B new for N PLAN 5x/0.12 and PL FL 5x/0.15 11555070

Objective prisms ICT in sliders (not pictured)

- IC prism A (narrow splitting, resolution optimized) 11555036
- IC prism B1 (narrow splitting, resolution optimized) (for older objective types from the earlier program) 11555038
- IC prism C (medium splitting, good compromise) 11555039
- IC prism D (wide splitting, high contrast) 11555037
- IC prism D1 (narrow splitting, high resolution) 11555063
- IC prism E (wide splitting, contrast optimized) 11555072

Required for transmitted light interference contrast with the Leica DM4 B:
Slot for DIC prism slider 11888187

Required for transmitted light-interference contrast with the Leica DM6 B:
DIC disk for 3 objective prisms, motorized 11555071

Objective prisms ICT/ICR

For installation in DIC prism disk 11555071.
When making your selection, please refer to the objective list at **http://www.leica-microsystems.com/objectives**.

- IC objective prism D1 (narrow splitting, high resolution) 11555056
- IC objective prism D (wide splitting, high contrast) 11555010
- IC objective prism A (narrow splitting, resolution optimized) 11555006
- IC objective prism B1 (narrow splitting, resolution optimized) 11555007
- IC objective prism C (medium splitting, good compromise) 11555009
- IC objective prism E (wide splitting, contrast optimized) 11555046

Transmitted light filter D = 32 mm (Fig. 72 p. 28)

Without holder for installation in the transmitted light filter magazine baseplate 11888100. The magazine holds 2 filters. The following options are available:

- DLF, daylight filter
  Blue conversion filter for daylight film and visual observation 11504046
- ALF, artificial light filter
  Red, color correction filter for artificial light film 11504047
- Panchromatic green filter
  For B/W photography and sensitivity enhancement of the eye 11504011
- Green filter VG 9
  For B/W photography and sensitivity enhancement of the eye 11504004
- Neutral gray filter N16
  6.3% transmission 11504005
- Neutral gray filter N4
  25% transmission 11504006
- Neutral gray filter N2
  50% transmission 11504007
- Diffusion filter N 11504012
- Blue glass filter BG 20
  Color contrast filter for Polaroid color photos and general contrast enhancement 11504009
- Conversion filter Y (only DM4 B) 11505283

Transmitted light filters, lambda and lambda/4 plate (Fig. 71 p. 27)

D = 32 mm in holder with handle. For insertion into filter holder 11505085 or into the slot for filter slide of polarizer DM ICT/P 11555077 or loose attachment to the field lens in the stand base.

- DLF, daylight filter (blue, conversion filter for daylight film and visual observation) 11514753
- Panchromatic green filter for black/white photography 11512077
- VG 9, green filter for contrast enhancement (B/W) 11563122
- Neutral filter N 2 (50%), in holder 11543092
- Neutral filter N 4 (25%) 11543093
- Neutral filter N 16 (6.3%) 11543184
- Polarizer 11505087
- Lambda plate (λ) 11513908
- Quarter lambda plate (λ/4) 11513570
- Polarizer with protective filter 11513711

Required:

Filter holder (Fig. 73 p. 29)

for two filters with D = 32 mm in holders, fastened using knurled screw underneath the condenser. 11505085

Fig. 73: Filter holder

Fig. 74: Booster lens

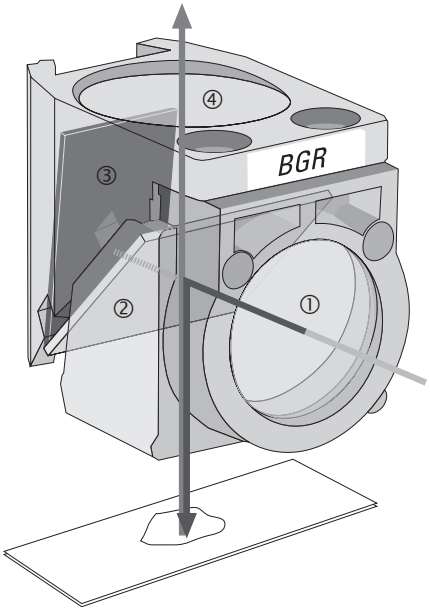


Fig. 75: Diagram of light trap
① Excitation filter
② Dichroic mirror
③ Leica light trap
④ Emission filter

Fig. 76: Filter system A4

INCIDENT LIGHT ILLUMINATION FOR BIO-FLUORESCENCE SYSTEMS

The incident light illumination system for fluorescence is based on high-intensity LED light sources. While LEDs are preferred now, bulb/lamp based florescence sources are still available when needed. For example, high-pressure mercury burners Hg 100W for short-wavelength excitation, Xenon lamps XE 75 W for broadband coverage and halogen bulb 12 V 100 W for samples with strong florescence signal. The requirement is a stand with stand top with fluorescence incident light axis e.g. 11888192, 11888812 or industrial incident light axis 11888640.
With FIM (Fluorescence Intensity Manager) method for decreasing light intensity in 5 increments for equalization of the brightness level. All incident light axes are equipped with a motorized light stop, which is activated at the touch of a button and prevents fading of the specimens. A switchable auxiliary lens (booster) provides maximum fluorescence brightness. The filter systems (blocks) have spring clamps for clicking into the incident light nosepiece disc. All relevant blocks are equipped with a red absorption filter BG38 for contrast enhancement.

Optional:
Booster lens (Fig. 74 p. 30)

Filter slide to increase light intensity in the event of weak fluorescence. 11888124

Required:
Fluorescence filter systems (Fig. 75 p. 30)

Insertion into the fluorescence or reflector disk does not require any tools. On the basis of high-precision manufacturing, during changing e.g. for multi-wave technique, there is no evident image misalignment (Zero Pixel Shift).

Optional:
Reflector cube (not pictured)

for lamp adjustment (Hg- and centrable RL lamp housings) 11513912

Reflector BF-LP425

For use with Leica EL6000 11505287

INCIDENT LIGHT ILLUMINATION (IND.) BF, DF, ICR, POL, LIGHT FILTERS, REFLECTORS

The incident light illumination system is based on a commercially available 12 V, 100 W halogen bulb, the luminous intensity of which is automatically adjusted to the preset value based on the reflection of the polished section and the light stream in the objective (Note: adjustment for incident light is not color-neutral). Alternatively, you can use high-intensity alternative gas discharge lamps, e.g. the Xe 75 W, with an external power supply.

Fig. 77: Reflectors

Incident light – bright field

At the touch of a button, the BF or Smith reflector swings into the beam path. The encoded objective turret recognizes the objective currently being used, and automatically adjusts the luminous intensity, incident light aperture and field diaphragm to preset values. The user can adjust and overwrite the preset values at any time. Objective magnifications 1.25x–150x (1.25x and 1.6x with anti-reflection device).

Required:
Reflector BF, fixed (1 Fig. 77 p. 31)

such as 11505139, but factory-adapted, only for DM4 M/DM4 P/ DM6 M 11888716

Optional:
Gray filter N16 (not pictured)

Can be mounted on reflector BF to reduce light when working with external light sources and dark field. 11565016

Optional:
Reflector P Smith (2 Fig. 77 p. 31)

Factory adapted, only for DM4 M/DM4 P/DM6 M, mirror and plane face glass splitter 2 x 22.5° with lens. For ICR and polarizing contrast especially suited. 11555081

Optional:
Reflector BF (1 Fig. 77 p. 31)

Freely adaptable, 45° neutral plane face glass splitter for incident light bright field, ICR, Pol
Reflector BF not applicable for stand tops DM6 B with 8x Fluo (11889203) 11571016

Fig. 78: Polarizer L/ICR

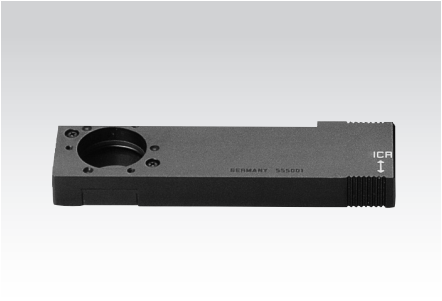


Fig. 79: Polarizer R/ICR

Fig. 80: Leica DM4 M with insert for DIC prisms in slider

Incident light – dark field

At the touch of a button, the DF reflector is swung into the beam path. The encoded objective turret recognizes the objective currently being used, and automatically adjusts the luminous intensity, aperture and field diaphragm to the maximum values required for dark field. The user can adjust and overwrite the preset values at any time.
Objective magnifications 5x–150x

Required:
Reflector DF (3 Fig. 77 p. 31)

Factory adapted, only for DM4 M/DM6 M, 45° ring mirror for incident light dark field 11888740

Incident light interference contrast (ICR)

Incident light interference contrast is set manually. The method is based on polarized light. The required incident light polarizer and analyzer elements are available on a slide bar as well as on a closed ICR filter system.
In the case of the DM4 M, the ICR prisms are located on prism disks that are inserted in the compensator slot at the objective turret. They are inserted in the motorized DIC prism disk in the DM6 M.
Objective magnifications 1.25x–150x

Required:
Equipment ICR with polarization slide:
Polarizer L/ICR (Fig. 78 p. 32)

In slide bar 29 x 11.5 mm, fixed orientation 0° (east-west) with lambda plate. Can be rotated 180° for activation or deactivation of the lambda plate for color contrast. 11555051

Analyzer, 180° (Fig. 84 p. 33)

In slide bar 30 x 5 mm, revolving 180° with scale intervals of 5° 11555079

Alternative:
Filter system for partially automated ICR (4 Fig. 77 p. 31)

For fast, comfortable operation.
Neutral splitter with permanently installed and fixedly crossed polarizer and analyzer and MgF_2 plate for homogenization of the brightness over the field. For inserting into the reflector disk. Interference color contrast is only possible via DIC prism (vignetting possible). 11513901

Polarizer R/ICR (Fig. 79 p. 32)

In slider 29 x 11.5 mm. Fixed orientation 90° (north-south) with MgF_2 plate for homogenization of the brightness of the field. Interference contrast is only possible via DIC prism (vignetting possible). 11555001

Insert for DIC prisms in sliders (Fig. 80 p. 32)

For DM4 M 11888187

Objective prisms ICT/ICR for Leica DM4 M

In slider for insertion in the compensator slot. Only for Leica DM4 M. Please consult objective list for selection.

- IC prism A (narrow splitting, resolution optimized) 11555036
- IC prism B1 (narrow splitting, resolution optimized) (for older objective types from the earlier program) 11555038
- IC prism C (medium splitting, good compromise) 11555039
- IC prism D (wide splitting, high contrast) 11555037
- IC prism D1 (narrow splitting, high resolution) 11555063
- IC prism E (wide splitting, contrast optimized) 11555072

DIC disk for 3 objective prisms, mot.

For DM6 M 11555071

Objective prisms ICT/ICR (not pictured)

For installation in DIC washer 11555071.
When making your selection, please refer to the objective list at **http://www.leica-microsystems.com/objectives**.

- IC objective prism D1 (narrow splitting, high resolution) 11555056
- IC objective prism D (wide splitting, high contrast) 11555010
- IC objective prism A (narrow splitting, resolution optimized) 11555006
- IC objective prism C (medium splitting, good compromise) 11555009
- IC objective prism E (wide splitting, contrast optimized) 11555046

Incident light – polarization contrast

For incident light polarization contrast, a revolving polarizer and an analyzer (fixed or rotating) are required. Low-strain objectives and condenser lenses increase the quality of the polarization contrast. Instead of polarizer and analyzer as individual slide bars, complete polarization filter systems can also be used if no polarizer rotation is required. These consist of neutral splitters with permanently crossed polarizers. See e.g. Pol filter system, IGS 11513898.

Required:
Polarizer R/P (Fig. 82 p. 33)

In slide bar 29 x 11.5 mm. Can be plugged into 3 different click stops 0° (east-west), 45° (diagonal), 90° (north-south). 11555005

Alternative:
Polarizer, revolving (Fig. 83 p. 33)

In slide bar 29 x 11.5 mm. Polarizer rotation 90°, lambda plate rotation approx. 14°. For color contrasting of anisotropic material surfaces, e.g. aluminum (sensitive tint method) 11565001

Analyzer, 180° (Fig. 84 p. 33)

In slide bar 30 x 5 mm, revolving 180° with scale intervals of 5° 11555079

Fig. 81: Objective prism insert

Fig. 82: Polarizer R/P

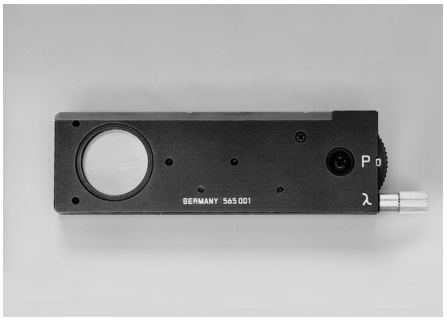


Fig. 83: Polarizer, rotating

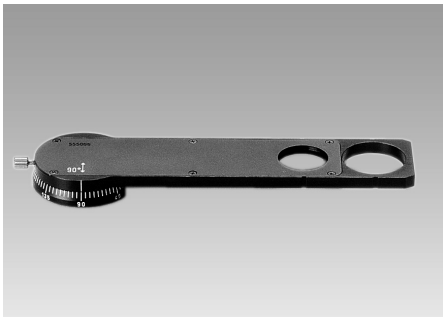


Fig. 84: Analyzer IC/P, 180°

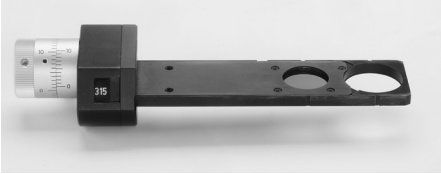


Fig. 85: Analyzer 360°

Fig. 86: Filter slide IL

Analyzer 360° (Fig. 85 p. 34)

In slide bar 30 x 5 mm, revolving, with vernier 0.1° 11555080

Polarizer 360° RL/P revolving,

with marking of the 0°, 90°, 180° and 270° positions 11555084

Incident light filter D = 25 mm

One incident light filter is inserted into each filter slide IL 11505154 (Fig. 84 p. 34). The complete filter slider is inserted into one of the two filter slots in the upper part of the stand. The following incident light filters are available:

- Panchromatic green filter
  For B/W photography and sensitivity enhancement of the eye 11513904
- Blue glass filter BG20
  Color contrast filter for Polaroid color photos and general contrast enhancement 11513905
- Daylight filter DLF
  Blue, conversion filter for daylight film and visual observation 11513906
- Interference green filter VSS 546nm
  For monochromatic light in interferometry 11513907

Filter slide IL (Fig. 86 p. 34)

For holding light filter listed above D = 25 mm 11505154

LIGHT SOURCES, LAMP HOUSING, SUPPLY UNITS

The light sources are housed in lamp mounts, which are housed in lamp housings. The lamp housings are fastened to the stand using a flange ring.

For transmitted light and incident light:

For LED lamp housing replacements for DM6 microscopes with former CTR6 LED 11888873, the compatible Lamp housing LED DM6 11504223 must be ordered.

Lamp housing LH111 LED
(only DM4 B/M LED and DM4 P) (Fig. 87 p. 35)

Metal lamp housing with pre-centered LED and focusable collector (PMax = 15 W) 11504197

LED lamp housings DM6, cabel long 11504242

Lamp housing 107/2 (single-lens) (Fig. 88 p. 35)

Plastic lamp housing with lamp access from above.
With fixed, pre-centered lamp mount with 0.55 m power cable including 1x halogen bulb 12 V 100 W, single-lens aspherical, permanently set collector, heat-absorbing filter, microprism grid disk with middle diffuser for enlargement of the lamp filament and optimization of the illuminated area, without reflector, without replacement lamp 11504080

Lamp housing 107/2 (single-lens)

as above, but with 2 m power cable 11504098

Lamp housing 107, left-hand operation (double-lens) (Fig. 89 p. 35)

Plastic lamp housing with lamp access from above.
With centerable lamp mount with 0.55 m power cable including 1x halogen bulb 12 V 100 W, Double-lens aspherical, focusable collector, heat-absorbing filter, microprism with middle diffuser for enlargement of the lamp filament and optimization of the illuminated area, without reflector, without replacement lamp. 11504086

Lamp housing 106 (double-lens) (Fig. 90 p. 35)

Metal lamp housing with side lamp access.
With centerable lamp mount with 0.55 m power cable including 1x halogen bulb 12 V 100 W, double-lens aspherical, focusable collector, heat-absorbing filter, microprism grid disk with middle diffuser for enlarging the lamp filament and optimizing the illumination, without reflector, without replacement lamp. 11504058

Lamp housing 106 (double-lens)

as above, but with 2 m power cable 11504059

Caution! For simultaneous incident light and transmitted light illumination, the following is required:
Power supply for 12 V, 100 W 11501179

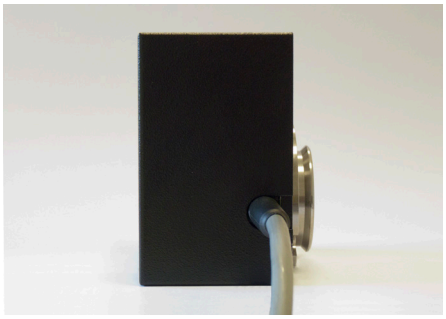


Fig. 87: Lamp housing LH111 LED

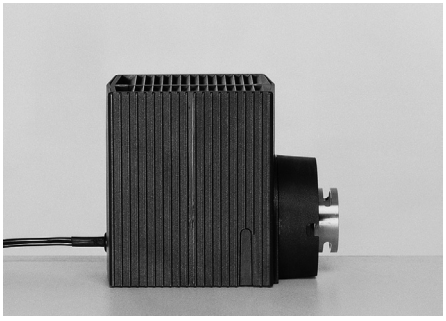


Fig. 88: Lamp housing 107/2 (single-lens)

Fig. 89: Lamp housing 107 (double-lens)

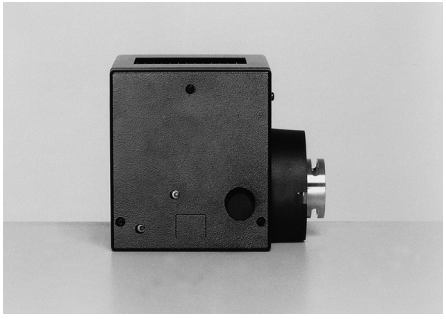


Fig. 90: Lamp housing 106 (double-lens)

Fig. 91: Leica EL6000

Fig. 92: 1. Liquid light guide
2. Adapter

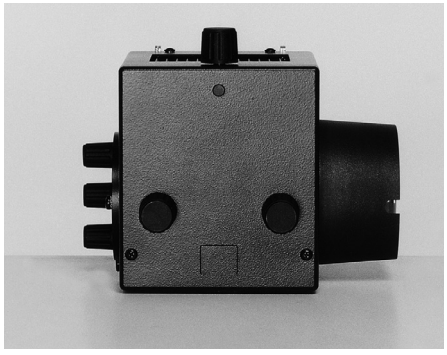


Fig. 93: Lamp housing 106Z – 12 V 100 W (4-lens)

Fig. 94: Illumination telescope

Only for incident light:

Leica EL6000 (Fig. 91 p. 36)
External, alignment-free light source with metal halogenide lamp 120 W with average service life of over 2000 hours. With removable heat-absorbing filter, running-time meter, manual attenuator, ultra-high-speed shutter (can be activated via Leica Application Suite). Adaptable via gel light guide (1 Fig. 90 p. 92) and adapter (2 Fig. 90 p. 92). Including bulb. 11504115

Light guide (Fig. 92 p. 36)
Gel-filled, elastic light guide for connecting the EL6000 and microscope via the 2 mm -> 5 mm diameter adapter. 11504116

Adapter 1.5" (2 Fig. 92 p. 36)
Adapting light guide with 1.5" fluorescence axis. Optimizing the illumination of the predecessor Leica DM4–DM6, DM IRB/IRE2, DM R, DM IL) 11504118

For the new fluorescence axis the lamp housings with 1" collector and for adaptation of Leica EL6000 the 1" fiber optic adapter (11504117) are to be used.

Adapter 1" (2 Fig. 92 p. 38)
Adapting light guide with new 1" fluorescence axis. Optimizing the illumination of the new Leica DM4–DM6. 11504117

LED light sources
- Leica SFL100 11504138

Leica LED Light Sources (Previously LED3/5/8)

PE-300 White (not Pictured)
Triggerable, solid state light source offering light in the 390-680nm range. Requires 'Fluid light guide Ø3x2000mm / series 380' 11504269

11504264

PE-300 Lite (Direct Coupled) 11504267

PE-400 max MB LLG (not Pictured)

The light source pE-400max MB LLG is the most advanced illumination system of the 400 series. Four powerful LEDs can be individually controlled via software, TTL, LASX GUI and manual control pod for demanding everyday fluorescence microscopy and optogenetics applications using the most popular fluorophores, ranging from DAPI through YFP to Cy5. Requires 'Fluid light guide Ø3x2000mm / series 380' 11504269

11504265

PE-800 MB LLG (not Pictured)

The light source pE-800 MB LLG provides eight individually controllable LEDs and fast TTL switching, The pE-800 delivers broad spectral coverage from 400-740 nm for use with fluorophores ranging from DAPI to Cy7 Requires 'Fluid light guide Ø3x2000mm / series 380' 11504269

11504266

Lamp housing 106Z Hg 100 W, 1" (6-lens)

Metal lamp housing with side lamp access. With centerable lamp mount, with 1,5 m power cable, 6 lenses, achromatic 1-inch focusable collector, UV optimized transmission > 50% at 340 nm, centerable reflector for doubling the focal point and optimization of the illuminated area, with heat absorbing filter, without burner.

11504114

Lamp housings with 1.5 " collector (fit to the predecessor fluo axis):

Lamp housing 106Z – 12 V 100 W, 1.5 " (4-lens) (Fig. 93 p. 36)

Metal lamp housing with side lamp access.
With centerable lamp mount with 0.55 m power cable including 1x halogen bulb 12 V, 100 W, four-lens, achromatic, focusable collector, centerable reflector for doubling of the lamp filament and optimization of the illuminated area, with heat-absorbing filter, without auxiliary lamp. 11504070

Lamp housing 106Z – Hg 100 W, 1.5 " (4-lens)

Metal lamp housing with side lamp access.
With centerable lamp mount for Hg 100 W lamp with 1.5 m power cable, without ignition unit.
4-lens, achromatic collector, centerable reflector for doubling the focal point and optimizing the illuminated area, with heat-absorbing filter, without burner. 11504069

Illumination telescope (Fig. 94 p. 36), 1.5 "

Optional for increasing the fluorescence intensity for the industrial incident light axis 11 888 640. For installation between lamp housing and microscope stand 11504500

Lamps and burners

- Halogen bulb 12 V 100 W (Fig. 95 p. 37) 11500974
- High-pressure mercury burner Hg 50 W (Fig. 96 p. 37) 11500137
- High-pressure mercury burner Hg 100 W (Fig. 97 p. 37) 11500138
- High-pressure mercury burner Hg 100 W/2 (longer life) 11500321
- Mercury short-arc reflector lamp OSRAM HXP-R120W/45C VIS 11504120

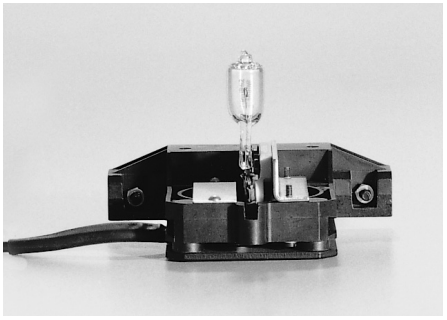


Fig. 95: Halogen bulb 12 V, 100 W for lamp housing 106Z

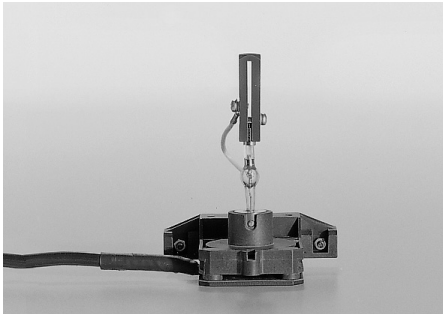


Fig. 96: Lamp mount for Hg 50 W

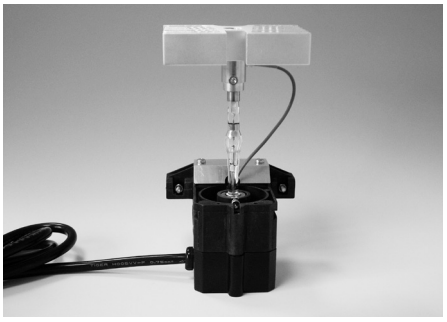


Fig. 97: Lamp mount for Hg 100 W

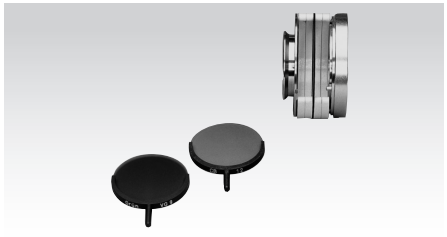


Fig. 98: Filter and spacer for filter d = 50 mm

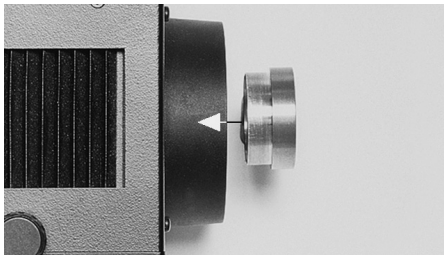


Fig. 99: Pol protective filter

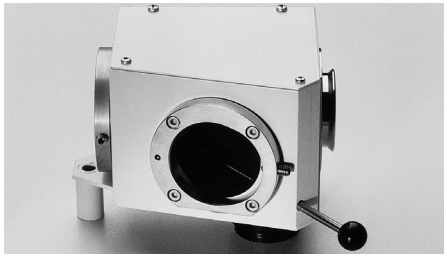


Fig. 100: Mirror housing 106

Fig. 101: Supply unit Hg 50 W

Fig. 102: Supply unit Hg 100 W

Spacer for filter D = 50 mm (Fig. 98 p. 38)

2 filter positions at LH 106/107, 4 filter positions with LH 106 Z. Adapter between LH. 11504030

Filters D = 50 mm in holder:

- DLF, daylight filter 11514755

Pol protective filter (Fig. 99 p. 38)

Caution! Absolutely necessary for protection of the incident light polarizers (IGS,ICR,Pol) when these are used with high-intensity gas discharge lamps. 11504079

Mirror housing 106 (Fig. 100 p. 38)

For adapting two lamp housings (Halogen/Hg). With manual mirror switching 11504053

Supply units

Supply Unit Hg 50 W (Fig. 101 p. 38)

With power supply cord, automatic switching to power supply voltage 90 V–250 V 50/60 Hz 11500333

Supply unit Hg 100 W (Fig. 102 p. 38)

With power supply cord, automatic switching to power supply voltage 90 V–250 V 50/60 Hz with operating hours display 11500334

Transformer for 12 V 100 W (not pictured)

for simultaneous incident light and transmitted illumination 11501179

OBSERVATION AND DOCUMENTATION TUBES

Precise, interchangeable dovetail joints and clamping screws on the stand cover ensure the firm, positive positioning of the tubes. They are designed according to the "Siedentopf principle" and contain the tube lens system (∞). The complex tube lens system converges the parallel beam path coming from the lens and forms the object in the intermediate image plane (eyepiece side or documentation side). The interpupillary distance range of 55 to 75mm can be adjusted easily and precisely with all tubes. The specimen focus is retained during adjustment.

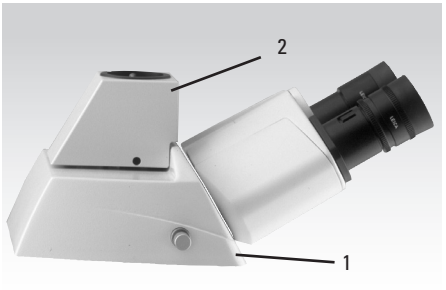


Fig. 103: Tube BDT25+ with mono tube top attachment

Tube BDT25+ (1 Fig. 103 p. 39)

Binocular observation and documentation tube, eyepiece tube
D = 30 mm, maximum field number 25, fixed viewing angle 30°,
3 switch settings with the following beamsplitting: 100%: 0%, 50%: 50%, 0%: 100%
19 mm CIP camera port 11505296

Tube BDTP25+ (1 Fig. 103 p. 39)

as for the BDT25+, but with orientation of the right eyepiece so that the cross-hairs remain aligned in the Pol eyepiece when adjusting the interpupillary distance. 11551076

Tube MBDT25+ (1 Fig. 104 p. 39)

Binocular observation and documentation tube such as BDT25+, but with automatic switching to the image outputs.
19 mm CIP camera port 11505297

Required for adapting photographic/TV systems to the BDT25+ and MBDT25+ tubes:
Mono tube top attachment (2 Fig. 103 p. 39)
Photo/TV holder with one output 11505161

Alternative:
Dual tube top attachment, fix (50:50) (2 Fig. 104 p. 39)
Photo/TV holder socket with two outputs 11505162

Alternative:
Dual tube top attachment, selectable (100:100), manual
(not pictured)
Photo/TV holder socket with two outputs 11505223

Alternative:
Dual tube top attachment, selectable (100:100), motorized
(not pictured)
Photo/TV holder socket with two outputs
I^2C interface required on the stand 11505231

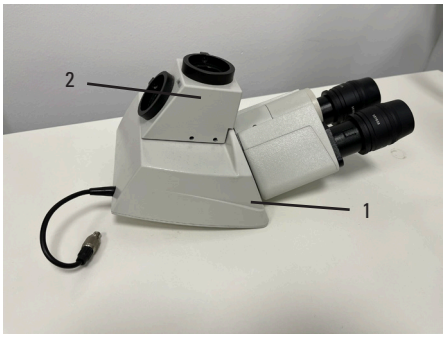


Fig. 104: Tube MBDT25+ with dual tube top attachment

Fig. 105: Tube AET22

Fig. 106: Tube EDT22 106

Fig. 107: Tube HC L 2TU 4/5/7

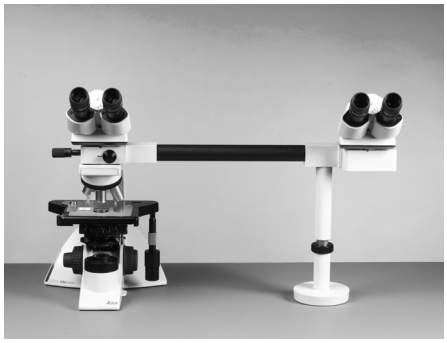


Fig. 108: Double discussion attachment

Tube AET22 (Fig. 105 p. 40)

Binocular ergonomic tube with variable viewing angle 5°–32° and variable eyepiece extension 0–30 mm.
Maximum field number 22. 11505148

Tube EDT22 (Fig. 106 p. 40)

Binocular observation and documentation tube with variable viewing angle 5°–32°. Permanent beamsplitting 50% : 50%.
Maximum field number 22 11505149

Ergo tube, image erection, 0/100 or 100/0 (not pictured)

Ergonomic documentation tube with variable viewing angle 0-35°, upright image, with switchable beamsplitting eyepieces/ camera of 0/100% and 100/0%.
Maximum field number 25. 11565024

Tubes from the DM L program can be used, e.g.:
Tube HC L 2TU 4/5/7 (Fig. 107 p. 40)

Binocular observation and documentation tube with erected image, viewing angle 20°, beamsplitting 100% : 100%

Tubes from the DM R product line can be used with tube adapter HC R/L.

DISCUSSION AND COMPARISON ATTACHMENTS

Double discussion attachment (Fig. 108 p. 40)

For two observers seated side-by-side or opposite each other. With illuminated pointer with power pack 90 V– 240 V. For eyepieces with a field number of maximum 20 mm. Tubes from the Leica DM L series can also be used. 11622020

Multiple discussion attachment (not pictured)

Including tubes HC LB and eyepieces HC PLAN 10x/20:

- Multiple discussion attachment, for 3 observers 90–254 V 11622030
- Multiple discussion attachment, for 5 observers 90–254 V 11622050
- Multiple discussion attachment, for 10 observers 90–254 V 11622100

For other discussion attachments: see special brochures.

TV ADAPTER

You can adapt analog and digital cameras to all tubes with documentation output. The C-B and F-mount adapters are aligned to the dimensions of the holder thread. The various fixed and variable magnification factors allow adjustment of the rendering of the microscopic image on the camera chip. In order to display the largest possible portion of the field of view on the monitor, the magnification factor of the adapter must fit the chip size of the camera. If the magnification is too low, there will be a lack of uniformity to the illuminated area (shading) and/or vignetting (Fig. 109 p. 41).

Fig. 109: TV adapter

	Recorded picture diagonal in mm with				
	1-inch camera	2/3-inch camera	1/2-inch camera	1/3-inch camera	Order No.
Without zoom magnification, for 1-chip cameras only:					
C-mount adapter 1x HC	16	11	8	6	11541510
C-mount adapter 0.7x HC	–	15.7	11.4	7.8	11541543
C-mount adapter 0.55x HC	–	–	14.5	10.9	11541544
C-mount adapter 0.35x HC	–	–	–	17.1	11541512
Without variable magnification level, for 1-3 chip cameras:					
C-mount adapter 1x	–	–	16	12	11543706
C-Mount -0.70x HC for EFW					11541545

Fig. 110: Objectives

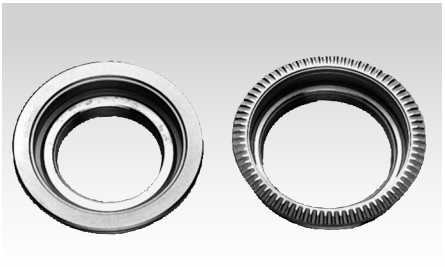


Fig. 111: Adapter for RMS-threaded objectives and Spacer ring 32/35

Fig. 112: Eyepieces

OBJECTIVES, EYEPIECES, GRATICULES, STAGE MICROMETER

Objectives (Fig. 110 p.42)

Based on the Leica principle of infinity distance correction of optics, the microscope objectives are infinity corrected for tube lens systems with 200 mm reference focal lengths. The calibration length is 45 mm for bright field and 42 mm for bright/dark field objectives (BD). When combining bright field objectives with bright/dark field objectives at the turret BD, all objectives are parfocal to 42 mm.
Even older objectives can be adapted for further use. An adapter is available for RMS-threaded objectives (Left Fig. 111 p. 42).

When selecting the objectives, consider the intended use with regard to specimen covering, etc.

For a detailed objective list, refer to
https://www.leica-microsystems.com/objectivefinder/

Eyepieces for tube eyepiece (Fig. 112 p. 42)

All eyepieces have removable or fold-down eyecups and can be used with or without eyeglasses. Eyepieces identified with M are equipped with a focusing eyelens for dioptric equalization (from –6.8 to +4.2 or –6 to +5) and graticule holder.
The outer diameter of the eyepiece is D = 30 mm. Graticule diameter D = 26 mm. The eyepiece data are engraved, e. g. HC PLAN 10x/20 oo M. HC PLAN = correction type, 10x = magnification/20 = field number FOV, oo = glasses type (high exit pupil), M = dioptric adjustment/graticule holder

Eyepieces with FOV 20

- Eyepiece HC PLAN 10x/20 BR. 11507801
- Eyepiece HC PLAN 10x/20 BR. M 11507802

Eyepiece with FOV 22

- Eyepiece HC PLAN S 10x/22 Br. M 11507820

Eyepiece with FOV 25

- Eyepiece HC PLAN S 10x/25 Br. M 11507808

Special eyepieces with high magnification

- Eyepiece HC PLAN 12.5x/16 BR. M 11506515
- Eyepiece 16x/14B, adjustable 10445301
- Distance ring for eyepiece 16x/14 B 11506808

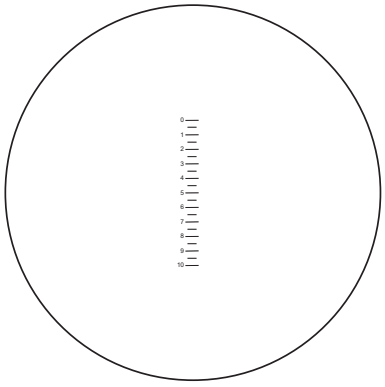
Graticule for length measurements, comparison and counting methods

For HC PLAN eyepieces

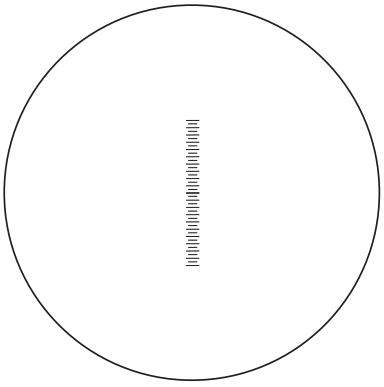
- Graticule 10 mm = 100 parts, D = 26 mm 11506950
- Graticule 10 mm = 200 parts, D = 26 mm 11506951
- Crosshair graticule, D = 26 mm 11506953
- Crosshair graticule with graduation 10 mm = 100 parts, D = 26 mm 11506952
- Graticule with grid 10 x 10 mm, 0.1 mm graduation, D = 26 mm 11506954
- Graticule with grid 10 x 10 mm, 1 mm graduation, D = 26 mm 11506955
- Graticule, Snyder-Graff method, D = 26 mm (only for 10x eyepiece) 11566950
- Graticule, ASTME 112, D = 26 mm (only for 10x eyepiece) 11566951

Stage micrometer

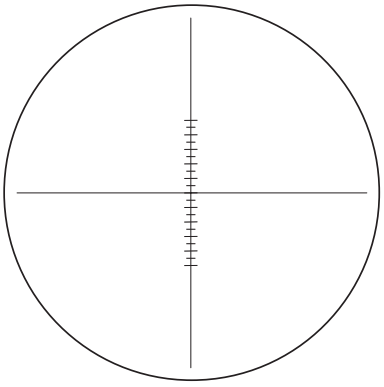
- Transmitted light 2 mm = 200T, glass carrier with scale 1 scale interval = 10 µm 11513106
- Incident light 10 mm = 100T for overview objectives (e.g. 1.25) 11519963



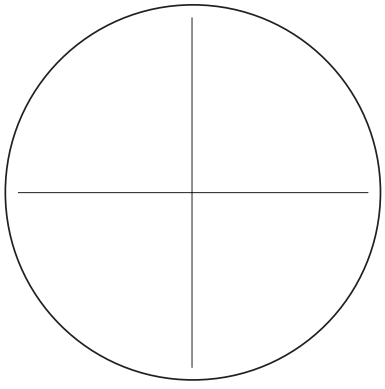
Graticule 11506950



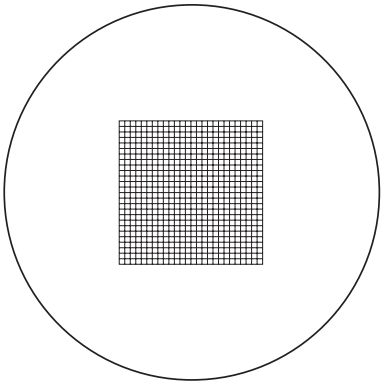
Graticule 11506951



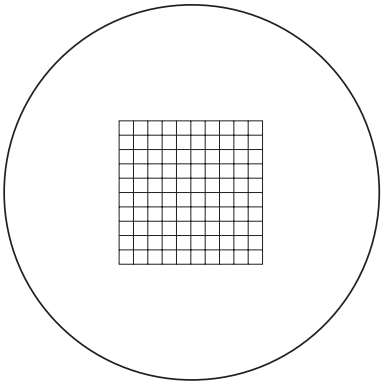
Graticule 11506952



Graticule 11506953



Graticule 11506954



Graticule 11506955

Fig. 113: Focusing telescope and specimen marker with screw-on thread M25

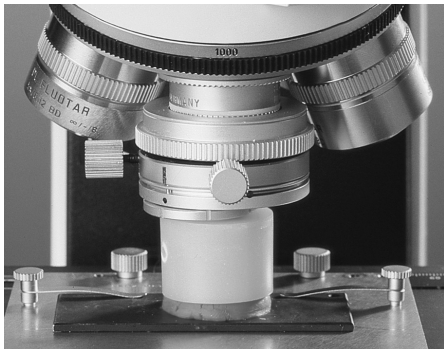


Fig. 114: Incident light interferometer

ADDITIONAL ACCESSORIES

Specimen marker (1 Fig. 113 p. 44)

Objective screw-on thread M25, with scoring diamond for circular markings, adjustable from approx. 0.05 to 4 mm in diameter. 11505059

Immersion Liquid

- Type F, ISO 8036, very low autofluorescence, highly recommended for fluorescence applications and APO objectives, 10 ml 11513859
- Type N, ISO 8036, low autofluorescence, 20 ml 11513860
- Type N, ISO 8036, low autofluorescence, 250 ml 11513861

Heating stage 45°

For biological or medical examinations Upon request

Heating Stage 350°, 600° and 1500°

For Thermo-Microscopy in material science Upon request

Incident light interferometer (Fig. 114 p. 44)

- Vss 546 interference green filter (D = 25 mm) for monochromatic light 11513907
- Filter holder for the incident light axis 11505154
- Spacer ring 32/25 (Right Fig. 111 p. 42): for adapting to objective turret BD M32. 11561097

Antivibration platform for DM4-6 11532780

Digital image documentation and analysis

(see dedicated brochures)

- Leica digital camera systems like the K series cameras (Fig. 115 p. 45 - K3), standalone with Enersight and 3rd party cameras. These include monochrome and color cameras for all requirements.

Leica Application Suite X (LAS X)

- Leica Application Suite X (LAS X) ideal for applications in fluorescence microscopy including live cell time-lapse experiments, multi-positioning, z-stacking and deconvolution see dedicated brochures.

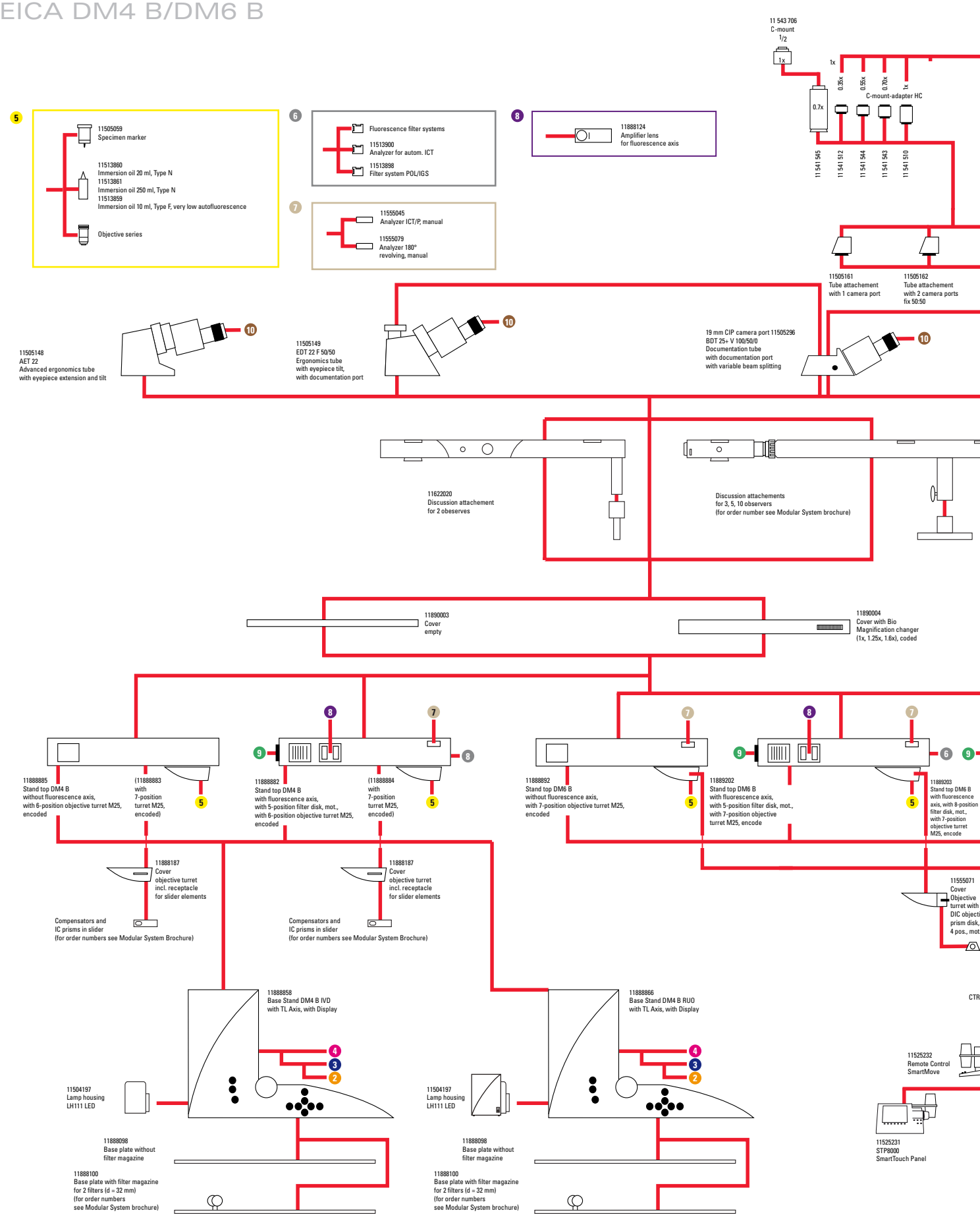
Fig. 115: Leica K series cameras and others

SPECIFICATIONS

Operating voltage:	100–240 V
Frequency:	50/60 Hz
Power consumption:	P max: 180 W
Operating temperature:	10 °C–36 °C
Relative humidity:	0–80% at 30 °C

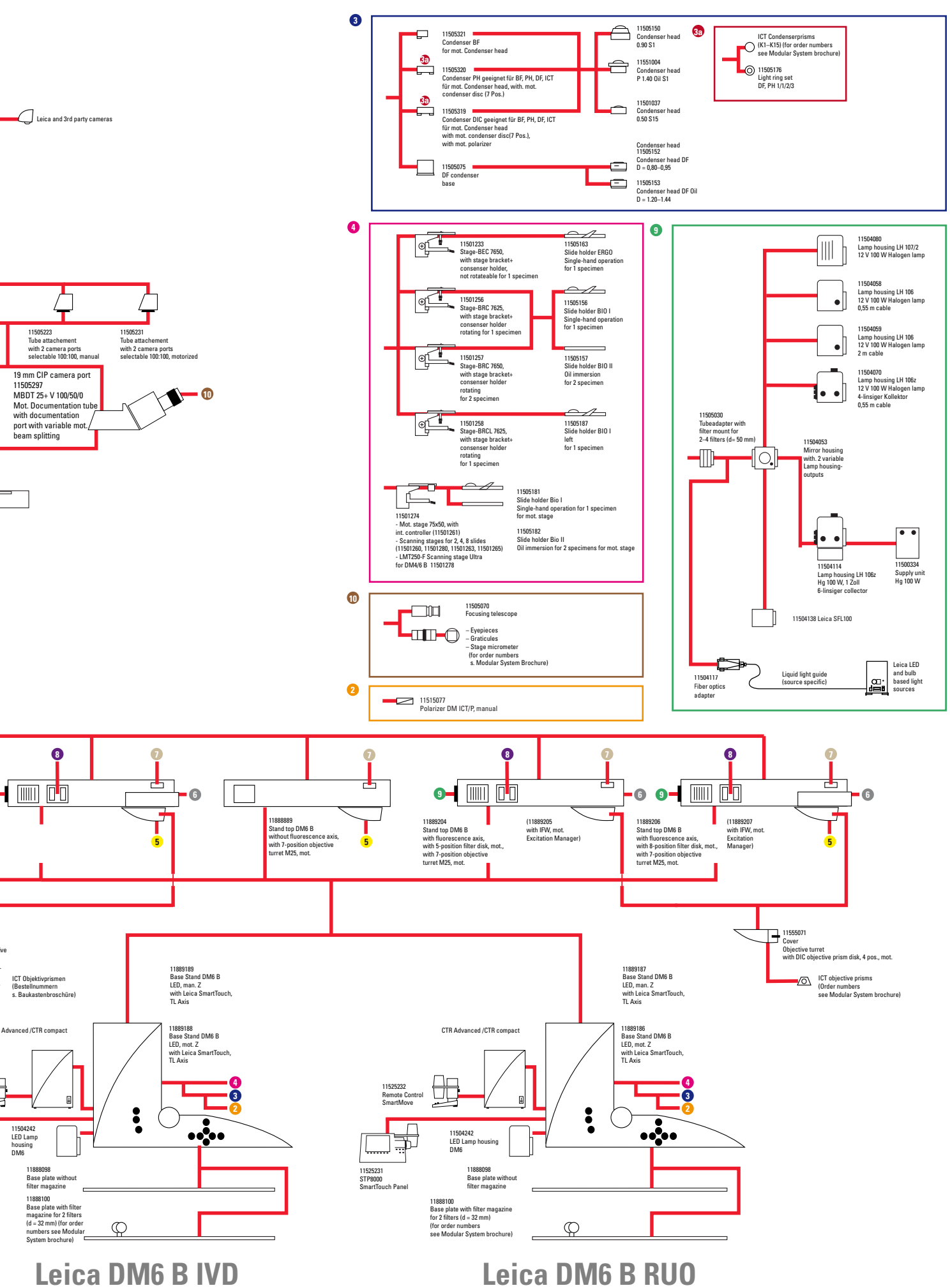
* The accuracy of the measurements and the compliance of the entire system to these standards strongly depends on a) the optical, electronic and mechanical components used, b) the working conditions and sample preparation process and c) the individual and specific interpretation of the results produced. These are the responsibility of the user of the equipment and Leica disclaims any liability in that context.

SYSTEM OVERVIEW
LEICA DM4 B/DM6 B



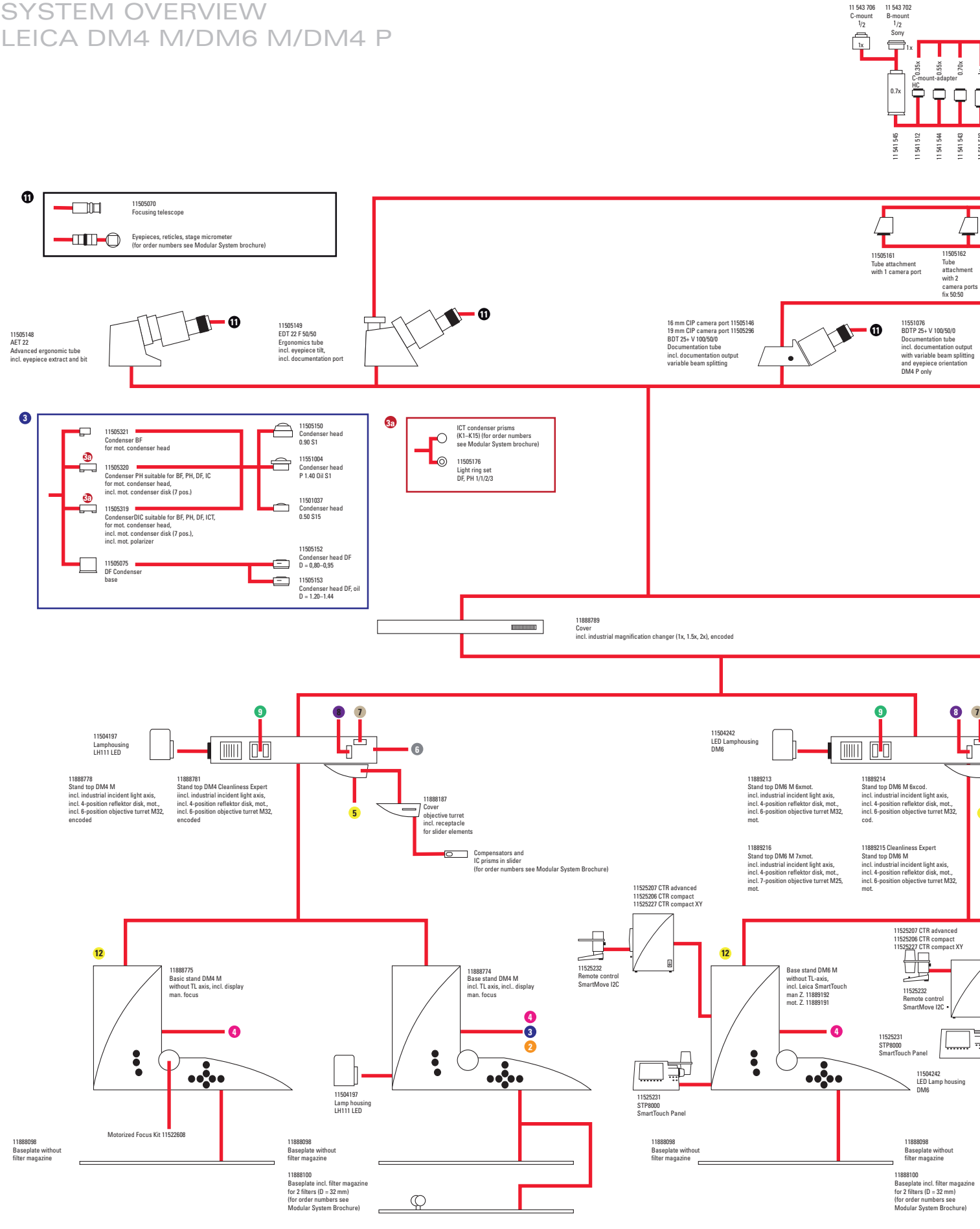
Leica DM4 B IVD

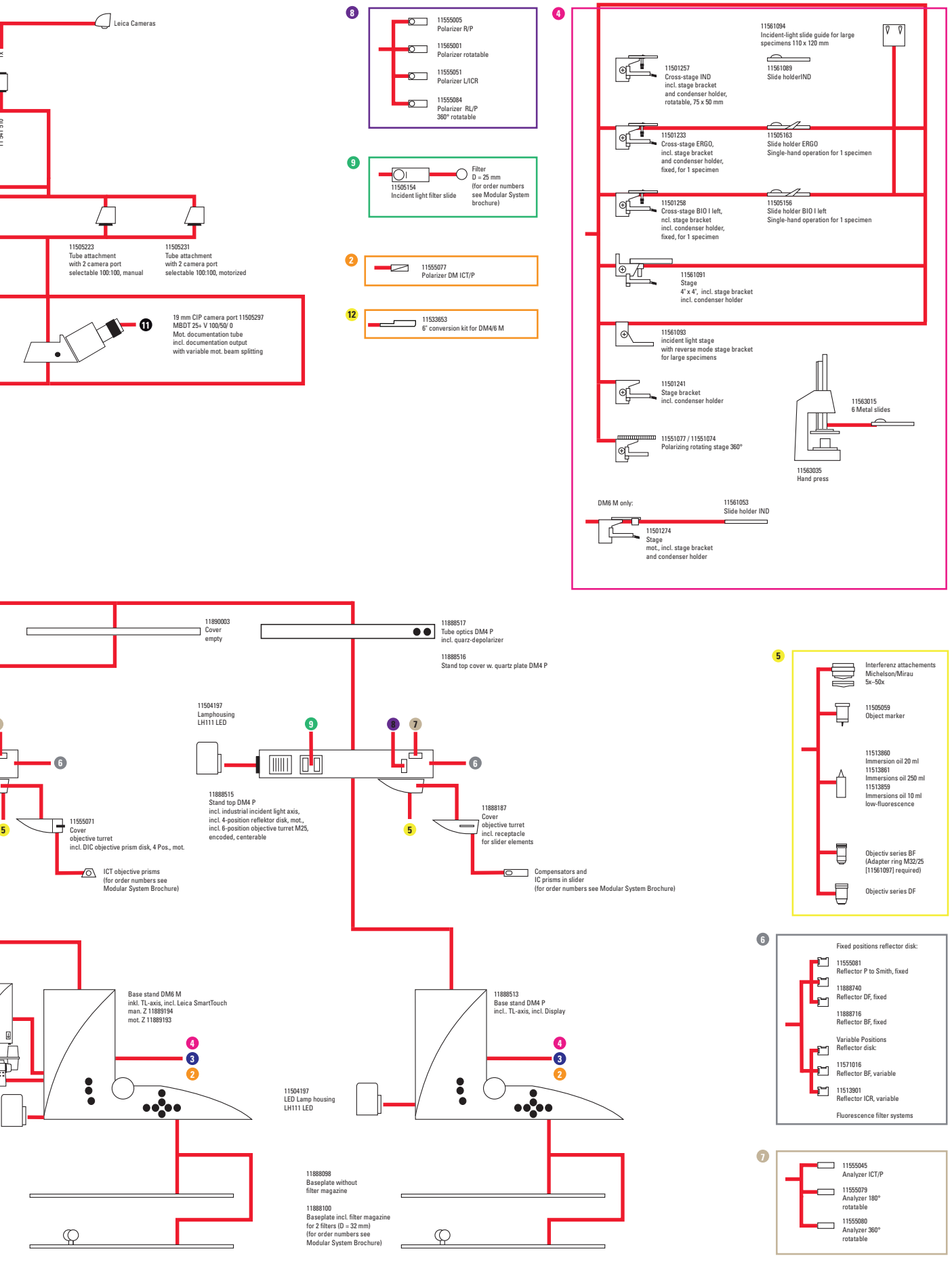
Leica DM4 B RUO



Leica DM6 B IVD

Leica DM6 B RUO


11 543 706
C-mount
1/2
1x
11 543 702
B-mount
1/2
Sony
1x
0.7x
0.35x
0.55x
0.70x
C-mount-adapter
HC
11 541 545
11 541 512
11 541 544
11 541 543
11
11505070
Focusing telescope
Eyepieces, reticles, stage micrometer
(for order numbers see Modular System brochure)
11505161
Tube attachment
with 1 camera port
11505162
Tube
attachment
with 2
camera ports
fix 50:50
11505148
AET 22
Advanced ergonomic tube
incl. eyepiece extract and bit
11505149
EDT 22 F 50/50
Ergonomics tube
incl. eyepiece tilt,
incl. documentation port
16 mm CIP camera port 11505146
19 mm CIP camera port 11505296
BDT 25+ V 100/50/0
Documentation tube
incl. documentation output
variable beam splitting
11551076
BDTP 25+ V 100/50/0
Documentation tube
incl. documentation output
with variable beam splitting
and eyepiece orientation
DM4 P only
3
11505321
Condenser BF
for mot. condenser head
3a
11505320
Condenser PH suitable for BF, PH, DF, IC
for mot. condenser head,
incl. mot. condenser disk (7 pos.)
3d
11505319
CondenserDIC suitable for BF, PH, DF, ICT,
for mot. condenser head,
incl. mot. condenser disk (7 pos.),
incl. mot. polarizer
11505075
DF Condenser
base
11505150
Condenser head
0.90 S1
11551004
Condenser head
P 1.40 Oil S1
11501037
Condenser head
0.50 S15
11505152
Condenser head DF
D = 0,80–0,95
11505153
Condenser head DF, oil
D = 1.20–1.44
3a
ICT condenser prisms
(K1–K15) (for order numbers
see Modular System brochure)
11505176
Light ring set
DF, PH 1/1/2/3
11888789
Cover
incl. industrial magnification changer (1x, 1.5x, 2x), encoded
11504197
Lamphousing
LH111 LED
11888778
Stand top DM4 M
incl. industrial incident light axis,
incl. 4-position reflektor disk, mot.,
incl. 6-position objective turret M32,
encoded
11888781
Stand top DM4 Cleanliness Expert
incl. industrial incident light axis,
incl. 4-position reflektor disk, mot.,
incl. 6-position objective turret M32,
encoded
11888187
Cover
objective turret
incl. receptacle
for slider elements
Compensators and
IC prisms in slider
(for order numbers see Modular System Brochure)
11504242
LED Lamphousing
DM6
11889213
Stand top DM6 M 6xmot.
incl. industrial incident light axis,
incl. 4-position reflektor disk, mot.,
incl. 6-position objective turret M32,
mot.
11889214
Stand top DM6 M 6xcod.
incl. industrial incident light axis,
incl. 4-position reflektor disk, mot.,
incl. 6-position objective turret M32,
cod.
11889216
Stand top DM6 M 7xmot.
incl. industrial incident light axis,
incl. 4-position reflektor disk, mot.,
incl. 7-position objective turret M25,
mot.
11889215 Cleanliness Expert
Stand top DM6 M
incl. industrial incident light axis,
incl. 4-position reflektor disk, mot.,
incl. 6-position objective turret M32,
mot.
11525207 CTR advanced
11525206 CTR compact
11525227 CTR compact XY
11525232
Remote control
SmartMove I2C
11888775
Basic stand DM4 M
without TL axis, incl. display
man. focus
11888774
Base stand DM4 M
incl. TL axis, incl.. display
man. focus
Base stand DM6 M
without TL-axis,
incl. Leica SmartTouch
man Z. 11889192
mot. Z. 11889191
11525231
STP8000
SmartTouch Panel
11504197
Lamp housing
LH111 LED
11504242
LED Lamp housing
DM6
Motorized Focus Kit 11522608
11888098
Baseplate without
filter magazine
11888100
Baseplate incl. filter magazine
for 2 filters (D = 32 mm)
(for order numbers see
Modular System Brochure)


Leica Cameras
11505223
Tube attachment
with 2 camera port
selectable 100:100, manual
11505231
Tube attachment
with 2 camera port
selectable 100:100, motorized
11
19 mm CIP camera port 11505297
MBDT 25+ V 100/50/ 0
Mot. documentation tube
incl. documentation output
with variable mot. beam splitting
8
11555005
Polarizer R/P
11565001
Polarizer rotatable
11555051
Polarizer L/ICR
11555084
Polarizer RL/P
360° rotatable
9
11505154
Incident light filter slide
Filter
D = 25 mm
(for order numbers
see Modular System
brochure)
2
11555077
Polarizer DM ICT/P
12
11533653
6° conversion kit for DM4/6 M
4
11561094
Incident-light slide guide for large
specimens 110 x 120 mm
11501257
Cross-stage IND
incl. stage bracket
and condenser holder,
rotatable, 75 x 50 mm
11561089
Slide holderIND
11501233
Cross-stage ERGO,
incl. stage bracket
and condenser holder,
fixed, for 1 specimen
11505163
Slide holder ERGO
Single-hand operation for 1 specimen
11501258
Cross-stage BIO I left,
incl. stage bracket
incl. condenser holder,
fixed, for 1 specimen
11505156
Slide holder BIO I left
Single-hand operation for 1 specimen
11561091
Stage
4" x 4", incl. stage bracket
incl. condenser holder
11561093
incident light stage
with reverse mode stage bracket
for large specimens
11501241
Stage bracket
incl. condenser holder
11563015
6 Metal slides
11551077 / 11551074
Polarizing rotating stage 360°
11563035
Hand press
DM6 M only:
11561053
Slide holder IND
11501274
Stage
mot., incl. stage bracket
and condenser holder
11890003
Cover
empty
11888517
Tube optics DM4 P
incl. quarz-depolarizer
11888516
Stand top cover w. quartz plate DM4 P
11504197
Lamphousing
LH111 LED
11888515
Stand top DM4 P
incl. industrial incident light axis,
incl. 4-position reflektor disk, mot.,
incl. 6-position objective turret M25,
encoded, centerable
11555071
Cover
objective turret
incl. DIC objective prism disk, 4 Pos., mot.
ICT objective prisms
(for order numbers see
Modular System Brochure)
11888187
Cover
objective turret
incl. receptacle
for slider elements
Compensators and
IC prisms in slider
(for order numbers see Modular System Brochure)
5
Interferenz attachements
Michelson/Mirau
5x–50x
11505059
Object marker
11513860
Immersion oil 20 ml
11513861
Immersions oil 250 ml
11513859
Immersions oil 10 ml
low-fluorescence
Objectiv series BF
(Adapter ring M32/25
[11561097] required)
Objectiv series DF
6
Fixed positions reflector disk:
11555081
Reflector P to Smith, fixed
11888740
Reflector DF, fixed
11888716
Reflector BF, fixed
Variable Positions
Reflector disk:
11571016
Reflector BF, variable
11513901
Reflector ICR, variable
Fluorescence filter systems
Base stand DM6 M
inkl. TL-axis, incl. Leica SmartTouch
man. Z 11889194
mot. Z 11889193
11504197
LED Lamp housing
LH111 LED
11888513
Base stand DM4 P
incl.. TL-axis, incl. Display
11888098
Baseplate without
filter magazine
11888100
Baseplate incl. filter magazine
for 2 filters (D = 32 mm)
(for order numbers see
Modular System Brochure)
7
11555045
Analyzer ICT/P
11555079
Analyzer 180°
rotatable
11555080
Analyzer 360°
rotatable

CONNECT
WITH US!

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www.leica-microsystems.com/