

From Eye to Insight



# LEICA DMi8 M LEICA DMi8 C LEICA DMi8 A

The modular system: Stands,  
components, accessories

May 2021



# LEICA DMI8 M, LEICA DMI8 C, LEICA DMI8 A

## Modular system

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# LEICA DMi8 – INTRODUCTION

The Leica DMi8 is the highly modular inverted research microscope. It is designed for all common microscope

applications and techniques. All contrast methods such as brightfield, oblique illumination, darkfield, differential interference contrast (DIC), polarization contrast, phase contrast and fluorescence are integral to the microscope and can be adapted or changed quickly and easily.

## Basic stand

The basic stand is the solid core of the microscope. It can be equipped with various focusing systems, objective turrets, stage mounts, and mounts for transmitted and incident light units.

To control or to see the status of the Leica DMi8 and its components, several control elements like touch screens, function keys or status LED's are attachable.

Camera ports with up to 19 mm FOV are standard on the Leica DMi8.

- The Leica DMi8 A can be configured with motorized components.
- The Leica DMi8 C can be configured with coded components.
- The Leica DMi8 M is completely manual microscope.

The system diagrams (see page 34) provide a good overview of this modular system. Thanks to its modular design principle, you can modify and/or extend your system to suit your requirements at any time. Ergonomic considerations were given a high priority in all of the stand designs, such as the convenient positioning of important controls and the availability of ergomodels or ergonomically designed components.

The functional and rugged design of the stands ensure ease of use and image stability for a wide range of applications up to the highest magnifications.

Optics of the highest quality ensure brilliant images with high contrast and resolution for any conceivable application.

## Note:

A Leica DMi8 Microscope stand is defined as a combination of 11889xxx /11525xx article numbers such as:

- microscope body
- incident light axis
- optic carrier
- camera ports
- reflector turret
- objective turret
- magnification changers
- transmitted light arms
- front modules
- etc.

11889xxx article numbers always come as an integral part of the aligned complete system. These articles are not possible to order as an individual component.



# DIMENSIONS AND TECHNICAL DATA

## Compact Leica CTR electronics box

For indoor use only.

Supply voltage: 100 – 240 VAC  
 Frequency: 50 / 60 Hz  
 Power consumption: max. 150 VA  
 Fuses: 3.15 A, slow-blowing,  
 Breaking capacity H, 250 VAC  
 Size: 5x20 mm  
 Ambient temperature: 15° - 35°C  
 Relative humidity: 90% up to 30°C,  
 non-condensing  
 Protection class: I  
 Overvoltage category: II  
 Pollution degree: 2

## Advanced Leica CTR electronics box

For indoor use only.  
 Supply voltage: 100 – 240 VAC  
 Frequency: 50 / 60 Hz  
 Power consumption: max. 290 VA  
 Fuses: 6.3 A, slow-blowing,  
 Breaking capacity H, 250 VAC  
 Size: 5x20 mm  
 Ambient temperature: 15° - 35°C  
 Relative humidity: 90% up to 30°C,  
 non-condensing  
 Protection class: I  
 Overvoltage category: II  
 Pollution degree: 2

## Leica EL6000\*

For indoor use only.  
 Supply voltage: 100 – 240 VAC  
 Frequency: 50 / 60 Hz  
 Power consumption: max. 200 VA  
 Fuses: 2.5 A, slow-blowing,  
 Breaking capacity H, 250 VAC  
 Size: 5x20 mm  
 Ambient temperature: 0° - 40°C  
 Relative humidity: 90% up to 30°C,  
 non-condensing  
 Protection class: I  
 Overvoltage category: II  
 Pollution degree: 2

(\* See provided Instructions for Use)

## Leica DMi8 M (manual)

For indoor use only.  
 Supply voltage: 100 – 240 VAC  
 Frequency: 50 / 60 Hz  
 Power consumption: max. 55 VA  
 Fuses: 1.6 A, slow-blowing,  
 Breaking capacity H, 250 VAC  
 Size: 5x20 mm  
 Ambient temperature: 15° - 35°C  
 Relative humidity: 90% up to 30°C,  
 non-condensing  
 Protection class: I  
 Overvoltage category: II  
 Pollution degree: 2

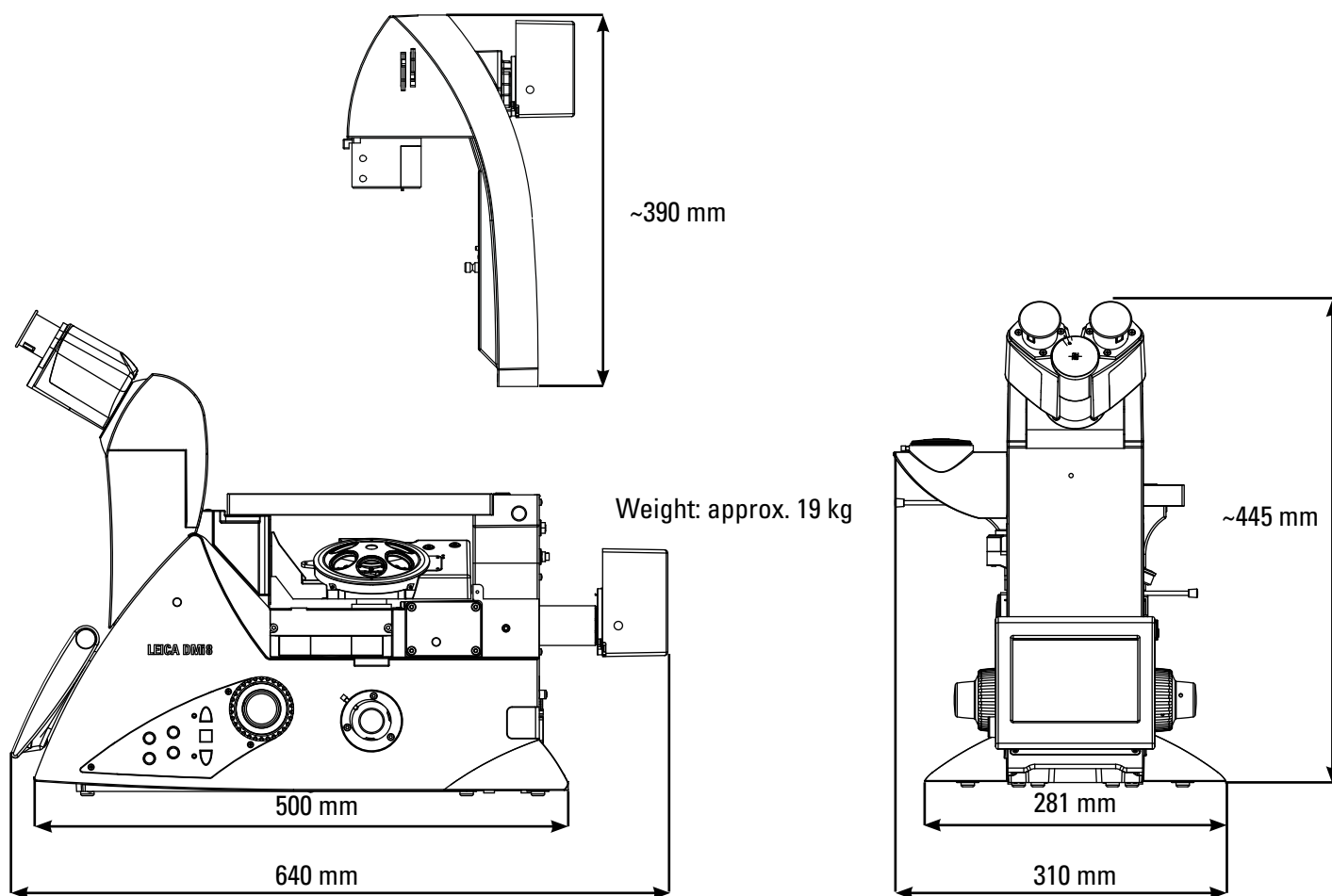
## Leica DMi8 C (coded)

For indoor use only.  
 Supply voltage: 100 – 240 VAC  
 Frequency: 50 / 60 Hz  
 Power consumption: max. 55 VA  
 Fuses: 1.6 A, slow-blowing,  
 Breaking capacity H, 250 VAC  
 Size: 5x20 mm  
 Ambient temperature: 15° - 35°C  
 Relative humidity: 90% up to 30°C,  
 non-condensing  
 Protection class: I  
 Overvoltage category: II  
 Pollution degree: 2

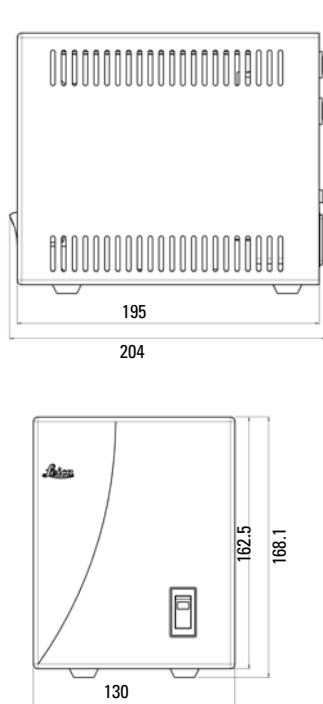
## Leica DMi8 A (automated)

For indoor use only.  
 Supply voltage: 100 – 240 VAC (→ Leica CTR)  
 Frequency: 50 / 60 Hz (→ Leica CTR)  
 Power consumption: see Leica CTR  
 Fuses: see Leica CTR  
 Ambient temperature: 15° - 35°C  
 Relative humidity: 90% up to 30°C,  
 non-condensing  
 Protection class: I (→ Leica CTR)  
 Overvoltage category: II (→ Leica CTR)  
 Pollution degree: 2 (→ Leica CTR)

## Leica DMi8

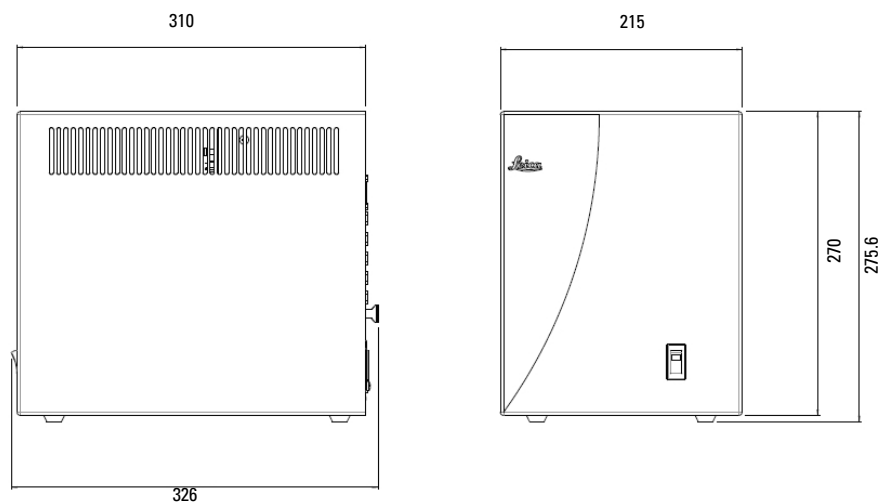


## Leica CTR compact



Weight: approx. 2 kg

## Leica CTR Advanced



Weight: approx. 4 kg

# STANDS AND OPTIC CARRIERS

## Stands

### Leica DMi8 A stand for motorized and automated functions

Motorized side port (no downgrade to coded side port)

Upgradable from manual coded to fully automated

11889122

### Leica DMi8 A stand for motorized and automated functions

Coded left side port (no upgrade to motorized side port)

Upgradable from manual coded to fully automated

11889121

### Leica DMi8 C stand for manual coded functions

Including power supply, lamp-module and 1x tube lens

Upgradable with manual coded components

11889117

### Leica DMi8 M stand for manual functions

manual left side port

Including manual nosepiece and manual focus.

Including power supply and lamp-module.

Including 1x tube lens.

Including all control elements

Upgradable with manual components.

11889092

## Optic Carrier

Optic carrier

11888032

Optic carrier for IMC (man. cod. mag. changer)

11888033



Fig. 1: Stand Leica DMi8 A



Fig. 2: Stand Leica DMi8 C



Fig. 3: Stand Leica DMi8 M

# MICROSCOPE CONTROL-ELEMENTS AND MICROSCOPE FUNCTION-KEYS

## Control Elements, left hand side of the microscope

Light  
Light and shutter  
Light, shutter and Fluor/TL buttons  
Light, Oblique illumination, Fluor/TL buttons and diaphragms

11889066  
11889067  
11889068  
11889069

## Control Elements, right hand side of the microscope

Empty  
4x function keys  
4x function keys and 3x focus keys

11889070  
11889071  
11889072

## Control Elements, front of the microscope

Empty  
6x status LED  
12x status LED  
6x function keys for objectives  
12x function keys for objective & reflector-cubes

11889064  
11889063  
11889061  
11889062  
11889060

## Touch-Screen

On site microscope, high resolution 6" touch-screen, tiltable and intensity adjustable

11889059

## Leica STP4000

External, wired, high resolution 6" touch-screen, intensity adjustable without xyz-control

11525220

## Leica STP8000

External, wired, high resolution 6" touch-screen, intensity adjustable, with xyz-controls for focus and motor stages, with 11 programmable function keys

11525113

## Leica SmartMove

x/y/z-Ergo control panel for electronic focus and motor stage. With 4 programmable function keys.

11525115



Fig. 4: Control elements left hand side



Fig. 5: Control elements right hand side



Fig. 6: Touch-Screen



Fig. 7: Leica STP8000



Fig. 8: Leica SmartMove

# LEICA CTR BOXES

Power consumption of Leica CTR Boxes (see page 4).

## Leica CTR compact

For all Leica DMI8 A (11889121, 11889122)  
without motorized stages.

11525206

## Leica CTR compact XY

Preconfigured with the control board for a motor and scanning stage.  
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

For all Leica DMI8 A (11889121, 11889122)  
with 1 Master-Module incl. 1x serial, 2x USB, 3 x I<sup>2</sup>C,  
upgradable with 6x CTR boards for motorized stages.

11525207

For motorized stage add CTR board XY basic (11525210).  
For scanning stage add CTR board XY advanced (11525211).

## Leica CTR advanced without lamp module

For all non motorized Leica DMI8 C (11889117)  
with 1 Master-Module incl. 1x serial,  
2x USB, 3 x I<sup>2</sup>C, upgradable with 6x CTR boards.  
For motorized stages.

11525208

For motorized stage add CTR board XY basic (11525210).  
For scanning stage add CTR board XY advanced (11525211).

## CTR board XY basic

CTR Board xy basic, 15 pins,  
to control 3-plate motor stages (rack and pinion)

11525210

## CTR board XY advanced

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

11525211

## Cable adapter 15/25 pins

Using a motorized 3-plate stage in combination with  
CTR Board xy advanced, 25 pins (11525211)

11505237



Fig. 9: Leica CTR compact



Fig. 10: Leica CTR advanced

## TUBES

The Leica DMI8 microscopes feature a fixed bino tube and ergonomic tubes integrated in the stand. The interpupillary distance can be adjusted according to the Siedentopf principle. The complex tube lens system is based on an infinite beam path. It converges the parallel beam path coming from the lens and forms the object in the intermediate image plane. Also, the tube lens system, together with the eyepieces, corrects the remaining image errors not corrected by the objective. The following applies to all tubes: Field of view 25 mm, eyepiece diameter 30 mm, a interpupillary distance range 55–75 mm and a viewing angle of 45° (Fixed) or 30–45° (Ergo)

**Binocular fixed tube** 11889025

**Binocular ergonomic tube** 11889026

### Trinocular ergonomic tube

Binocular observation tube with side camera port and variable light path, 100% visual / 0% camera, and 50% visual / 50% camera 11889030

### Trinocular ergonomic tube

Binocular observation tube with side camera port and variable light path, 100% visual / 0% camera, and 0% visual / 100% camera 11889028



Fig. 11: Trinocular ergonomic tube

### C- Mount Adapter for Top Port (see page 31)

## EYEPIECES

A wide range of eyepieces with 10x, 12.5x or 16x magnification (for different field numbers of up to 25 mm) are available for the tubes. Special eyepieces for eyeglass wearers are available, as are eyepieces with adjustable eyelenses (M eyepieces) designed to accommodate a variety of graticules. The standard eyepiece is the 10x eyepiece, microphotography recording frequently prefers the 12.5x eyepiece magnification due to the higher focusing accuracy. However, the observed object field is smaller. The 16x eyepiece magnification is only meaningful for special cases; exceeding the "beneficial magnification" ( $V < 1000\times$  objective aperture) can often be expected, i.e. possible fuzziness may occur.

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.

### 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 eyepieces 16x/14B 11506808



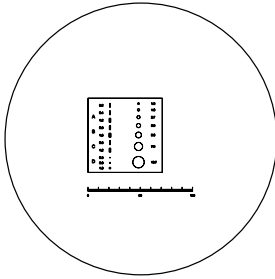
Fig. 12: Eyepiece HC PLAN 10x/20

# FOCUSING AND FRAMING GRATICULES

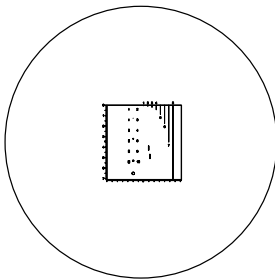
## Graticules for length measurements, comparison and counting method

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
- Snyder-Graff-Meth. graticule, D = 26 mm (for 10x eyepiece only) 11566950
- ASTM E 112 graticule, D = 26 mm (for 10x eyepiece only) 11566951
- Graticule for steel inclusion rating (ISO 4967) 11102231
- Graticule for steel inclusion rating (EN10247) 11102232



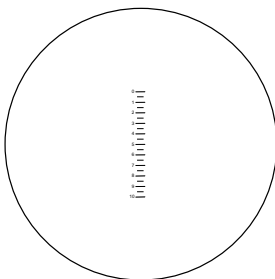
Graticule 11102231



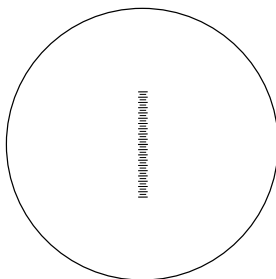
Graticule 11102232

## Stage micrometer

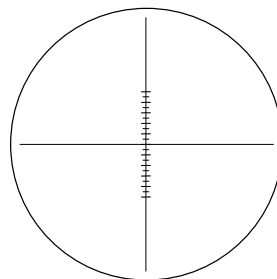
- Transmitted light 2 mm = 200T, glass carrier with scale 1 scale interval = 10  $\mu$ m 11 513 106
- Incident light 10 mm = 100T for overview objectives (e.g. 1.25) 11 519 963



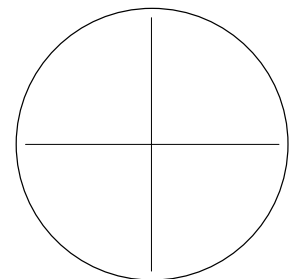
Graticule 11506950



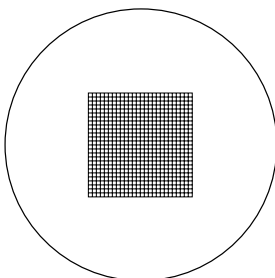
Graticule 11506951



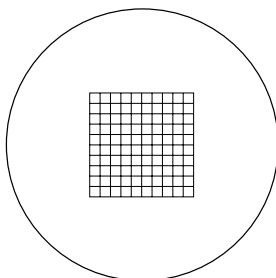
Graticule 11506952



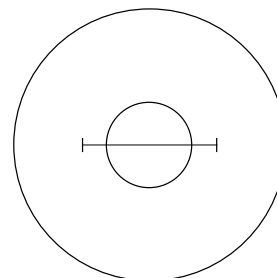
Graticule 11506953



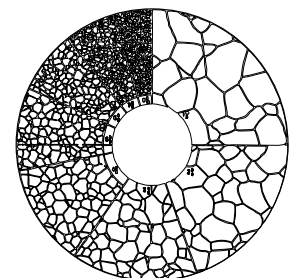
Graticule 11506954



Graticule 11506955



Graticule 11566950



Graticule 11566951

# OBSERVATION AND DOCUMENTATION PORTS

## Camera ports for Leica DMi8 M or C (11889092, 11889117)

Manual left camera side port 100/0	11889043
Manual left camera side port 80/20	11889042

## Camera ports for Leica DMi8 C or A (11889117, 11889121, 11889122)

Coded left camera side port 100/0	11889045
Coded left camera side port 80/20	11889044

## Camera ports for Leica DMi8 A (11889121, 11889122)

### Motorized side port, left

You may select at least one and up to three different prisms from the following for this version:

Side port prism, 100% left	11888259
Side port prism, 80% left	11888262
Side port prism, 50% left	11888264

### Motorized side port, right

You may select at least one and up to three different prisms from the following for this version:

Side port prism, 100% right	11888258
Side port prism, 80% right	11888261
Side port prism, 50% right	11888263

### Motorized side port, right and left

You may select at least one and up to three different prisms from the following for this version:

You have to select at least one right and one left prism!

Side port prism, 100% right	11888258
Side port prism, 100% left	11888259
Side port prism, 80% right	11888261
Side port prism, 80% left	11888262
Side port prism, 50% right	11888263
Side port prism, 50% left	11888264

### No side port

This version requires the port compensation module	11888256
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### Trinocular ergonomic tube

Binocular observation tube with side camera port and variable light path, 100% visual / 0% camera, and 50% visual / 50% camera	11889030
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### Trinocular ergonomic tube

Binocular observation tube with side camera port and variable light path, 100% visual / 0% camera, and 0% visual / 100% camera	11889028
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### C- Mount Adapter for side port (see page 31)



Fig. 13: Left side port



Fig. 14: Top port

## FOCUS



Fig. 15: Focus

### **Manual Focus 2-gear (coarse/fine)**

Manual focus system with 12 mm travel range.

Tactile Coarse / Fine manual Focus Drive with coarse and fine / knob on each side of the microscope

11889115

Required:

**Focus guide box**

11889116

### **Manual Focus 3-gear (coarse/medium/fine)**

with individual torque adjustment and adjustable upper focus stop (coarse focus)

11889100

Required:

**Focus guide box**

11889116

### **Motorized Focus**

Motorized focus system with 12 mm travel range.

Tactile Coarse / Fine motorized Focus Drive with 4 gears and 5 sensitivity levels (0.05  $\mu$ ; 0.1  $\mu$ ; 0.7  $\mu$ ; 1.5  $\mu$ ; 5.0  $\mu$ ). Electronic focus repositioning and electronic parfocality, with coarse / fine knob on each side of microscope

11889055

### **Motorized Closed Loop Focus**

Motorized closed loop focus system with encoded 12 mm travel range.

Reproducibility < 20 nm bidirectional. Tactile Coarse / Fine motorized Focus Drive with 4 gears and 5 sensitivity levels (0.05  $\mu$ ; 0.1  $\mu$ ; 0.7  $\mu$ ; 1.5  $\mu$ ; 5.0  $\mu$ ) Electronic focus repositioning and electronic parfocality, with coarse / fine knob on each side of microscope

11889056

## OBJECTIVE NOSEPIECE

In principle, all infinity corrected high-performance Leica objectives with an M32 or M25 thread may be used. Even older objectives can be adapted for further use. Adapter rings for objectives with RMS or M25 thread are also available. Objectives of earlier lines with RMS threads cannot be adapted unconditionally, however, as problems with parfocality and field flattening may arise.

Numerous application objectives with long working distances (L objectives) are available specifically for inverted microscopy. The focusing of the specimen is carried out via the objective turret that can be fitted with up to 6 objectives. The reliable, stable and precise focusing is not affected by the stage and its specimens or accessories.

### Manual Coded Nosepiece M32

Coded 6-fold objective nosepiece  
with M32 mm threads and 45 mm parfocal distance 11889094

### Manual Coded Nosepiece M25

Coded 6-fold objective nosepiece  
with M25 mm threads and 45 mm parfocal distance 11889049

### Motorized Nosepiece M32

Motorized coded 6-fold objective nosepiece  
with M32 mm threads and 45 mm parfocal distance 11889095

### Motorized Nosepiece M25

Motorized coded 6-fold objective nosepiece  
with M25 mm threads and 45 mm parfocal distance 11889050



Fig. 16: Objective Nosepiece M32

## OBJECTIVES

Based on the Leica principle of infinity distance correction of optics, the microscope objectives are infinity corrected for tubelens systems with 200 mm reference focal lengths. The calibration length is 45 mm. The objectives are divided into 4 correction classes:

Objective	Class	Field of view performance
Achromatic	HI PLAN	up to 20
Planachromatic	NPLAN	up to 22
Semi-apochromatic	HC/X PLFLUOTAR	up to 25
Apochromatic	HC/X PL APO	up to 25

When selecting the objectives, consider the intended use with regard to specimen covering, etc. For more detailed explanations, please refer to the appendix of the objective list.

<http://www.leica-microsystems.com/objectives>

**Adapter ring M32/25**

11561097

**Adapter ring M25/RMS**

11506028

## TUBE LENS AND MAGNIFICATION CHANGER

**Fixed 1x tube lens**

11889023

**Motorized magnification changer**

including 1x tube lens at position 1

11889024

**Magnification levels for motorized magnification changer**

In addition to the 1x tube lens, one or two lenses can be installed on the disk of the motorized magnification changer.

1.5x tube lens for motorized magnification changer

11888699

1.6x tube lens for motorized magnification changer

11888377

2.0x tube lens for motorized magnification changer

11888376

**Manual Magnification Changer**

for Eyepiece and Top Port.

**Front Module with integrated**

coded 1.5x Magnification changer

11889097

coded 2.0x Magnification changer

11889096



Fig. 17: Objectives

## INCIDENT LIGHT ILLUMINATION

The Leica DMI8 M/C/A series are system microscopes for the following incident-light methods in materials testing and materials research: Bright field, dark field, polarization contrast, interference contrast (ICR) and fluorescence. In addition oblique illumination is integrated in the DMI8 M/C/A. With the Leica DMI8 A routine functions such as the adjustment of intensity and incident-light diaphragms to the objective magnification and specimen conditions are automated and offer optimal working comfort. The Leica DMI8 M and C contain the manual diaphragm module. LED lamp housing can be used for the incident-light contrast methods bright field, dark field, polarization contrast and interference contrast while another lamp housing can be adapted for fluorescence.

### Motorized incident light axis

11889090

### Manual incident light axis

11889089

The Leica DMI8 series features a completely new incident illumination system and comes with

- centerable manual or motorized field and aperture diaphragm
- build-in manual or motorized oblique illumination
- optimized for LED illumination for all contrasting techniques (BF, Obl., DF, DIC, Pol)
- manual, coded or motorized 6-fold reflector turret or a coded 2-fold reflector turret.
- filter turret with fast, magnetic filter exchange
- filter turret with access panels on both sides

The filter systems (cubes) have magnets to guide them into the reflector turret without tools.

### Motorized 6-position reflector turret

Operation via function-keys at the microscope, touch-screen or software depending on the configuration

11889022

### Manual coded 6-position reflector turret

Operated from both sides. The active filter position is indicated via LED at the front panel, touch Screen or software depending on the configuration

11889021

### Manual 6-position reflector turret

Manual 6-fold reflector turret. Operated from both sides. A color code indicates the active position

11889020

### Manual coded 2-position reflector turret

Operation from both sides. No feedback from the LED frontpanel

11889098

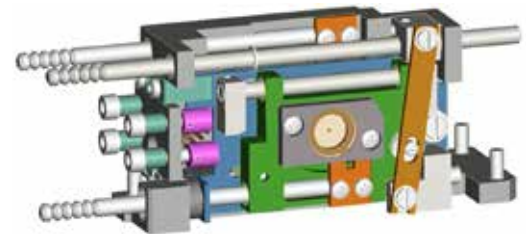


Fig. 18: Manual diaphragm module in man IL axis

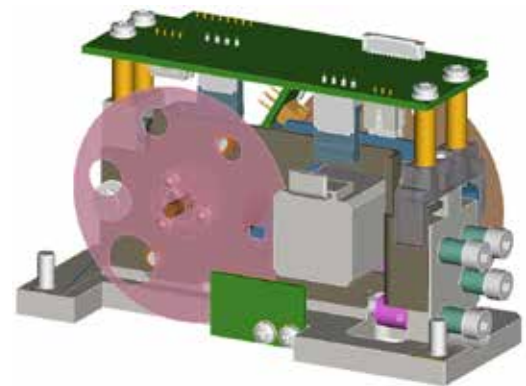


Fig. 20: Motorized diaphragm module in motorized IL axis



Fig. 19: Reflector Turret

# REFLECTORS, FILTERS, INCIDENT LIGHT POLARIZERS AND ANALYZERS



Fig. 21: Incident light 0.7x macro objective



Fig. 22: Macro cube



Fig. 23: Reflector BF

## Incident light bright field

With the push of a button on a Leica DMI8 A, the BF reflector or the Smith reflector are rotated into the beam path. The motorized coded objective turret recognizes the objective and automatically adjusts luminous intensity, incident light aperture and field diaphragm to the preset values. The user can adjust and overwrite the preset values at any time. Objective magnifications 0.7x–150x (1.25x and 1.6x with glint-protection device). All incident-light functions of a Leica DMI8 M/C are carried out fully manual.

## Incident light macro system 0.7x (not available in Japan)

System consists of macro cube and objective.

11565056

Two different bright field reflectors are available that differ according to the adaptation in the reflector disk:

## BF reflector

Bright field reflector that can be inserted in one of the two variable positions of the reflector disk. 45° neutral glass insert divider for incident light bright field, ICR and pol.

11565053

Optional:

## Gray filter N16

Insertable on BF reflector for light reduction when working with external light sources.

11565016

Optional:

## P reflector to Smith

Special Bright-field reflector with mirror and glass insert divider 2 x 22.5° with lens for incident light bright field, ICR and POL contrast. High degree of polarization, especially well suited for ICR and polarizing incident light.

11565055

Optional:

## Filter cube BF-LP425

Cube for reflected light brightfield in connection with fluorescence axis. Designed for e.g. observation of particles on polished silicon, fluorescence labelling on compact materials like polished ceramics, woodchips etc

11525402

## Incident light dark field

With a push of the button of the Leica DMi8 A, the DF reflector is rotated into the beam path. The motorized coded objective turret recognizes the objective and automatically adjusts intensity, incident light aperture and field diaphragm to the light values required for dark field. The user can adjust and overwrite the preset values at any time. Using the DMi8 C the DF reflector is rotated manually into the beam path.

Objective magnifications 5x–150x.

Required:

### DF reflector, fixed

45° ring mirror for incident-light dark field.

11565054

## Incident light light filter D = 25 mm

Two of the incident light filters listed below are placed in the IL filter slide. The complete filter slide is located in the filter slot in the rear section of the stand.

### IL filter slider

to mount the above light filters D = 25 mm

11525216

The following incident light filters can be selected:

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

## Incident light interference contrast (ICR)

The manual incident light interference contrast requires a polarizer, an analyzer and a set of Wollaston prisms. In addition, the Leica DMi8 A offers a fully automated ICR function.

The Leica ICR demonstrates its strengths during the analysis of defects, for example during the examination of surface structures. Objectives with magnifications from 5x to 100x can be used for ICR. Fast switching between ICR, bright field and dark field is possible at all times without the need for DIC prisms to remain in the beam path. The IC prisms at the objective side are located in the objective prism disk.

For valid combinations of prisms and objectives, please refer to the objective list.

The coded objective turret of the DMi8 C/A knows the objective. The motorized objective prism disk selects the correct objective prism and sets the bias. The reflector revolver fully automatically moves the ICR reflector into the beam path. In addition, light intensity, aperture diaphragm and field diaphragm are automatically adjusted to the required values. The user can adjust and overwrite the preset values at any time. If a BF or Smith reflector is used instead of the IRC reflector, the corresponding IC prism must be manually rotated into the beam path and adjusted.

When the manual objective system prism disk is used, the Leica display of the DMi8 with touchscreen shows the information for the required prisms.



Fig. 24: Dark-field reflector (DF)

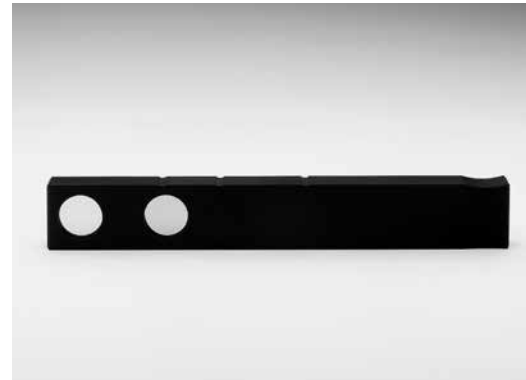


Fig. 25: IL Filter slider

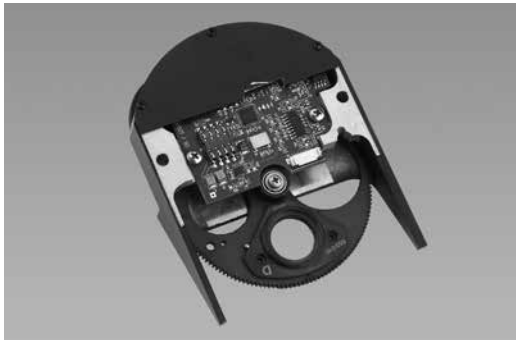


Fig. 26: Motorized DIC objective prism disk



Fig. 27: Objective prism D



Fig. 28: Filter system for fully automated ICR



Fig. 29: R/ICR polarizer



Fig. 30: L/ICR polarizer

## Manual DIC objective system prism disk,4 positions

11522123

## Manual coded DIC objective system prism disk

11525117

## Motorized coded DIC objective system prism disk

(only for Leica DMI8 A)

11525118

The required incident light polarizer and analyzer elements can be supplied on a slider and as an enclosed ICR filter system.

## ICT/ICR objective prisms

(for assembly in DIC disk 11522048 or 11522049)

- 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 C1 (narrow splitting, resolution optimized) 11522038
- IC objective prism C2 (wide splitting - high contrast) 11522039
- IC objective prism D (wide splitting - high contrast) 11555010
- IC objective prism D1 (narrow splitting - high resolution) 11555056
- IC objective prism E (wide splitting, contrast optimized) 11555046

## Compensator slot for DIC prism slider

11565061

## IC prism slider

- IC prism slider A (narrow splitting, resolution optimized) 11555036
- IC prism slider B1 (narrow splitting, resolution optimized) 11555038
- IC prism slider B2 (wide splitting, contrast optimized) 11555050
- IC prism slider C (medium splitting, good compromise) 11555039
- IC prism slider D (wide splitting - high contrast) 11555037
- IC prism slider D1 (narrow splitting - high resolution) 11555063
- IC prism slider E (wide splitting, contrast optimized) 11555072

## Filter system for fully automated ICR

For quick and convenient operation. Neutral splitter with permanently installed and fixedly crossed polarizer and analyzer and  $MgF_2$  plate for homogenizing the brightness over the field. For use in the reflector disk. Interference color contrast is possible only via DIC prism .

11525375

alternative:

## ICR equipment with polarization slider:

The polarization mount is located on the left side of the stand below the objective turret. The cover for the objective DIC slider opening is a component of the stand.

## R/ICR polarizer

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

11555001

## L/ICR polarizer

In slider 29 x 11.5 mm. Fixed orientation 0° (east-west) with Lambda plate. 180° rotation for activation or deactivation of the Lambda plate for color contrast.

11555051

The analyzer slider is located on the right side of the stand below the objective turret. The cover for the objective slider opening is a component of the stand.

#### **Analyzer, 180°**

In slider 30 x 5 mm, rotating 180° with drum head graduation of 5°, 1 scale line = 5°

11522062



Fig. 31: Analyzer, 180°

#### **Analyzer, ICT/P**

In slide bar 30 x 5 mm, fixed orientation 90°

11522046



Fig. 32: Analyzer, ICT/P

### **Incident-light polarization contrast**

A fixed or revolving polarizer and an analyzer are required for incident-light polarization contrast. Low-stress objectives and condenser lenses are a requirement for optimal quality of the polarization contrast. Instead of polarizer and analyzer as single slider, it is also possible to use complete polarization filter systems if the examination does not require a rotating polarizer. They consist of a neutral divider with firmly crossed polarizers.

#### **P reflector to Smith**

Mirror and glass insert divider 2 x 22.5° with lens for incident-light bright field, ICR and polarizer contrast.

High degree of polarization, especially well suited for ICR and polarizing incident light.

11565055



Fig. 33: R/P polarizer

#### **Pol. filter system, IGS**

Reflector consisting of polarizer and analyzer in firmly crossed position.

11525358

#### **R/P polarizer**

In slider 29 x 11.5 mm. Changeable in 3 click stops 0° (east-west), 45° (diagonal), 90° (north-south).

11555005

Alternative:

#### **Polarizer, rotating**

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

11565001



Fig. 34: Polarizer, rotating



Fig. 35: Interference base component

## Michelson/Mirau incident-light interference device

Surface analyses with accuracies in the range of a few nanometers are performed at the Leica DMI8 with the Michelson/Mirau mount. The exact and quick measurement of filters in the optical industry or the analysis of polished surfaces are application areas of this non-destructive analysis system.

This requires the following:

### 5x, Michelson

11565020

consisting of:

- PL FLUOTAR 5x/0.15 Michelson objective
- 5x Michelson dual-beam mount
- Base structure

### 10x, Mirau

11565021

consisting of:

- PL FLUOTAR 10x/0.30 Mirau objective
- 10x Mirau dual-beam mount
- Base structure

### 20x, Mirau

11565022

consisting of:

- N Plan H 20x/0.40 Mirau objective
- 20x Mirau dual-beam mount
- Base structure

### 50x, Mirau

11565023

consisting of:

- N Plan H 50x/0.50 Mirau objective
- 50x Mirau dual-beam mount
- Base structure

### Interference green filter VSS 546 (Ø 25 mm)

for monochromatic light, without mount

11513907

### IL filter holder for Ø 25 mm filter

11522028

### Adapter ring M32/25

11561097

### Adapter ring M25/RMS

11506028

# STAGES AND SPECIMEN HOLDERS

A wide range of specimen stages are available. The most popular are:

- Fixed stage (248 x 204 mm) normal, heatable / temperature controlled
- Manual or motorized 3-plate stages
- Scanning stage
- Gliding stage

## **Fixed stage (248 x 204 mm)** 11522078

88 mm Inserts with different openings for fixed stages, slim 3-plates stages and 160 x 110 mm plates.

- Insert with 5 mm opening 11522083
- Insert with 10 mm opening \*) 11522084
- Insert with 20 mm opening 11522085
- Insert with 40 mm opening 11522086

\*) Insert with 10 mm opening is already included

## **Object guide for fixed regular stages**

(for 11522078)

Attachable object guides for all regular fixed stages measuring 248 mm x >200 mm to accommodate a variety of application inserts. 11522014

## **Inserts**

for attachable object guide 11522014

- Holding frame for glass slide 76 mm x 26 mm 11520593
- Universal Holding frame M 11533041  
for Petri dishes (24–68 mm) or glass slides
- Universal Holding frame M-Duo for 11531798  
1 or 2 Petri dishes (24-56 mm) and/or 1 glass slides

## **Manual 3-plate-stage (without insert)**

Traveling range: 100 mm x 50 mm

Aluminum, extremely scratch-resistant, precisely plane-parallel for 160 x 130 mm inserts.

Ergonomic operating arm: low position, does not interfere with microscope controls or camera ports, with coaxial drive for x and y. Adjustable torque, extremely precise and sensitive. Three-point mounting. 11525387

## **Motorized 3-plate-stage (without insert)**

Traveling range: 100 mm x 40 mm

Aluminum, extremely scratch-resistant, precisely plane-parallel for 160 x 130 mm inserts.

Control via the Leica Application Suite software in conjunction with the SmartMove remote control or Leica STP8000. Extremely precise and sensitive. Three-point mounting. 11525386

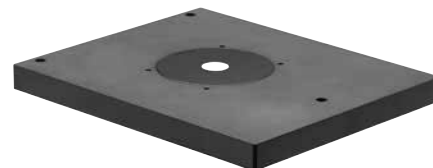


Fig. 36: Fixed stage



Fig. 37: Attachable object guide for fixed stages



Fig. 38: Universal holding frame M



Fig. 39: Manual 3-plate-stage

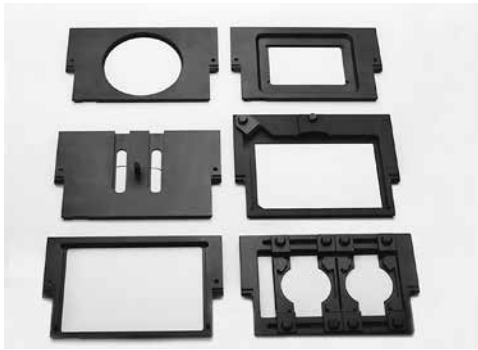


Fig. 40: Various inserts for attachable mechanical stage



Fig. 41: Scanning stage 100 x 40

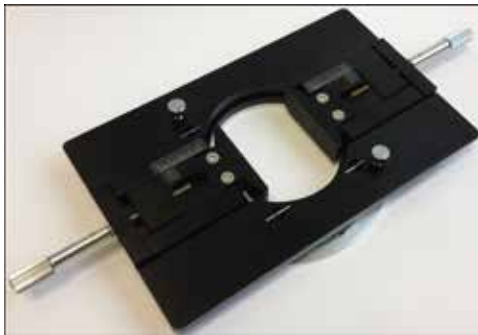


Fig. 42: Rot. sample holder for DMi8 M/C/A



Fig. 43: Leica STP8000

### Scanning stage 100 x 45 (without insert)

3-plate scanning stage without insert

Traveling range: 100 mm x 45 mm

Three-point mounting. Aluminum, extremely scratch-resistant, precisely plane-parallel for 160 x 130 mm inserts.

Max. positioning speed: 10 mm/sec. to 100 mm/sec.

Max. resolution: 0.02–0.04  $\mu\text{m}^*$

Reproducibility: <1  $\mu\text{m}^*$

Precision:  $\pm 3 \mu\text{m}^*$

11525385

Prerequisites for scanning stages

**Leica SmartMove for DM/DMI series**

11525115

or

**Leica STP8000**

11525113

### Inserts for manual and motorized stages

3-plate stages and scanning stages are ready to accept inserts with outside dimensions of 160 x 130 mm. Depending upon the specimen size, the following inserts can be selected:

- Mounting frame 160 x 130 for round insert 11525379
- Insert with 5 mm inside diameter 11525382
- Insert with 10 mm inside diameter 11525381
- Insert with 20 mm inside diameter 11525380
- Insert with 30 mm inside diameter 11525383
- Insert with 40 mm inside diameter 11525384

### Rot. sample holder for DMi8 M/C/A

Rotatable sample holder for samples up to 40 x 40 mm. To be inserted into mounting frame for round inserts (11525379).

11533185

### Rotating Gliding Stage

11533156

### Accessories for scanning stages

- Cable for scanning stage to XY-advanced board 11525218

### Stage micrometer

- Transmitted light 2 mm = 200T, glass carrier with scale  
1 scale interval = 10  $\mu\text{m}$  11513106
- Incident light 10mm = 100T for overview objectives (e.g. 1.25) 11519963

# LIGHT SOURCES, LAMP HOUSINGS, SUPPLY UNITS

## For Incident Light

### LED lamp houses without shutter

- 70 cm cable (recommended for Leica DMi8 M/C) 11525100
- 185 cm cable (recommended for Leica DMi8 A) 11525102

optional:

### Halogen lamp housings

#### Lamp housing 107/2 (single-lens)

with lamp access from above. With fixed, pre-centered lamp mount with 2.50 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.

11504103

#### Lamp housing 107, left-hand operation (double-lens)

with lamp access from above. With centerable lamp mount with 2.50 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.

11504101

#### Lamp housing 106 (double-lens)

with side lamp access. With centerable lamp mount with 0.70 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.

11504058

**Lamp housing 106 (double-lens)** as above, with 2.5 m power cable 11504059

#### Lamp housing 106z, right-hand operation – 12 V 100 W (4-lens)

with side lamp access. With centerable lamp mount with 0.70 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

Allways required:

### Power Supply 12 V 100 W

11501179

### Halogen bulb 12 V 100 W

11500974



Fig. 44: LED lamp house



Fig. 45: Leica EL6000

## For Fluorescence

### Leica EL6000

- External light source 11504115
- Liquid light guide, 2 m 11504116
- Cable for shutter control Leica EL6000 I<sup>2</sup>C 11500336
- 1-inch fiber optics adapter for lamp mounts 11504117

### Lamp housing 106z – Hg 100 W (6-lens)

(In combination with T-House(2) only), with centerable lamp mount for Hg 100 W lamp, with 1.5 m power cable, without burner.

6-lens, achromatic 1-inch collector, with heat-absorbing filter

- left hand operation 11504106
- right hand operation 11504114



Fig. 46: Lamp housing 106z – Hg 100 W (6 lens)

### Lamp housing 106z – Xe 75 W (6-lens)

(In combination with T-House(2) only) with centerable lamp mount for Xe 75 W lamp, with 1.5 m power cable, without burner. 6-lens, achromatic 1-inch collector.

With heat-absorbing filter, face protection, protective gloves 11504105

## Lamps and burners

- High-pressure mercury burner Hg 100 W/2 11500321
- Lamp HXP R120/45C-Vis for Leica EL6000 11504120
- High-pressure xenon burner Xe 75 W 11500139

## Supply units

### Supply unit Hg 100 W

With power supply cord, automatic switching to power supply voltage

90 V–250 V 50/60 Hz with operating hours display. 11500334

### Supply unit Xe 75 W

With power supply cord, automatic switching to power supply voltage

90 V–250 V 50/60 Hz with operating hours display. 11500335

### LED light sources (not available in the US)

- Leica SFL100, 365nm 11504196
- Leica SFL100, 470nm 11504138
- Leica SFL100, 530nm 11504195



Fig. 47: Leica SFL100

## TRANSMITTED LIGHT AXIS

The transmitted light illumination unit essentially consists of an illumination source and condenser carrier. Excellent light utilization is ensured by the LED Lamp in replaceable Leica lamp housings. Optimal and homogeneous illumination is a prerequisite for all transmitted light contrast methods.

### Fixed basic transmitted light arm

Basic fixed transmitted light arm including LED illumination, condenser base and aperture diaphragm. To hold S50/0.50 and S80/0.30 condenser lenses.

With:

- 70 cm cable (for DMi8 C) 11525105
- 185 cm cable (for DMi8 A) 11525116

### Tilting manual transmitted light axis

With integrated tilting mechanism for specimen clearance, integrated manual filter magazine for 2 replaceable filter positions (one preconfigured with manual shutter), Condenser Quick-Changer for all manual condensers, lamp housing adapter for LED, integrated duct for the lamp housing cable:

- with manual Field Diaphragm 11525107

### Tilting manual coded transmitted light axis

with integrated tilting mechanism for specimen clearance, integrated manual filter magazine for 2 replaceable filter positions (one preconfigured with manual shutter), Condenser Quick-Changer for all coded/motorized condensers, lamp housing adapter for LED, integrated duct for the lamp housing cable

- with manual Field Diaphragm 11525110

### Tilting motorized transmitted light axis

with integrated tilting mechanism for specimen clearance, integrated manual filter magazine for 2 replaceable filter positions (one preconfigured with manual shutter), Condenser Quick-Changer for all coded/motorized condensers, lamp housing adapter for LED, integrated duct for the lamp housing cable

- with motorized Field Diaphragm 11525111



Fig. 48: Fixed basic transmitted light arm



Fig. 49: Tilting transmitted light arm

## LED LIGHT SOURCES (FOR TRANSMITTED LIGHT)

### LED lamp house

- 70 cm cable 11525100
- 185 cm cable 11525102



Fig. 50: LED lamp house

# TRANSMITTED LIGHT AXIS FILTERS

## Light filter Ø 40 mm, unframed

for tilting light axis.

2 transmitted light filters can be swung in on the tiltable transmitted light illumination arms. A broad selection of filters is available to optimize illumination for observation and documentation. All illumination arms come with a light stop pre-installed in one position. Users can replace it with one of the following filters, however.

- |   |          |
|---|----------|
| • DLF, daylight filter                  | 11521577 |
| • Panchromatic green filter             | 11521582 |
| • Neutral filter N 16 (6.3%)            | 11521579 |
| • Neutral filter N 4 (25%)              | 11521580 |
| • Neutral filter N 2 (50%)              | 11521581 |
| • Green filter VG 9, narrow band filter | 11521583 |

# TRANSMITTED LIGHT FILTERS

## Ø 32 mm in holder with handle

- |   |          |
|---|----------|
| • Panchromatic green filter for black/white photography | 11512077 |
| • VG 9, green filter for contrast enhancement (B/W)     | 11563122 |
| • IL 546 nm (Polarization microscopy, interferometry)   | 11563155 |
| • Neutral filter N2 (50%)                               | 11543092 |
| • Neutral filter N4 (25%)                               | 11543093 |
| • Neutral filter N16 (6.3%)                             | 11543184 |
| • Polarizer   | 11505087 |
| • Lambda plate  | 11513908 |
| • Quarter lambda plate                                  | 11513570 |
| • Polarizer with protective filter                      | 11513711 |

## Ø 32 mm without holder

to be placed on the condenser.

- |   |          |
|---|----------|
| • DLF, daylight filter                      | 11504046 |
| • ALF, artificial light filter              | 11504047 |
| • Panchromatic green filter                 | 11504011 |
| • Green filter VG 9                         | 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 |
| • Interference green filter VSS 546         | 11504010 |
| • Blue glass filter BG 20                   | 11504009 |



Fig. 51: Filter with handle

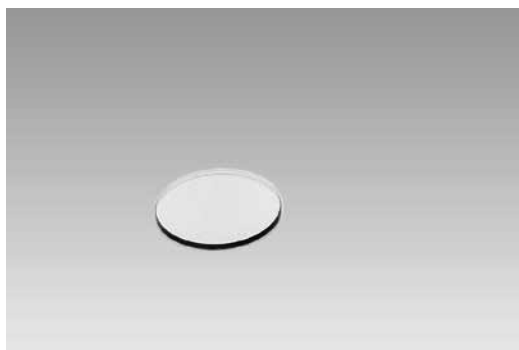


Fig. 52: Transmitted light filter

# CONDENSERS AND ACCESSORIES

A variety of condensers are available for the Leica DMi8

Three different types of condenser systems are available.

## Type 1:

This condenser system features a 7-position condenser disk to accommodate light rings, IC prisms or slit diaphragms (3 positions with diameter 23 mm and 4 positions with diameter 32 mm) and mount for a polarizer.

Incl. height adjustment and field diaphragm adjustment, if suitable.

Incl. adjustment tools and tool-box.

Available as motorized and manual coded version.

## Type 2:

This condenser system features a 5-position condenser disk to accommodate light rings, IC prisms or slit diaphragms (2 positions with diameter 23 mm and 3 positions with diameter 43 mm), and mount for a polarizer.

Available manual version

## Type 3:

This condenser system features a 3-position condenser slider to accommodate light rings.

Available manual version

Type 1 and 2 are used in combination with the tilting transmitted light axis.

Type 3 is used in combination with the fixed transmitted light axis.

All the condenser bases can be individually equipped with different condenser lenses.

The condensers

- can be used for Brightfield, Phase-Contrast, Polarization. There are exceptions for DIC
- Additional features
  - aperture diaphragm
  - mount for interchangeable condenser heads

## S70 Condenser System (Type 1)

The motorized S70/0.30 condenser features a free working distance of 70 mm, a numerical aperture of 0.30 and is particularly suitable for specimens in high-volume containers. Including motorized aperture diaphragm.

Possibility to mount motorized polarizer.

Contrasting Techniques: BF, PH, Pol, DIC

Magnifications: 4x up to 40x

### Motorized S70/0.30 with fixed condenser head

- Motorized condenser base incl. head S70/0.30
- Light ring set for phase contrast S70/0.30
- Motorized polarizer holder including polarizer

11525370

11521506

11522120



Fig. 53: Condenser S70/0.30



Fig. 54: Light rings



Fig. 55: S28 condenser



Fig. 56: S28 condenser head



Fig. 57: Condenser heads and spacer ring



Fig. 58: Condenser S80/0.30

## S28 Condenser System (Type1)

The manual/coded or motorized S28/0.55 condensers feature a free working distance of 28 mm, a numerical aperture of 0.55 and are particularly suitable for thicker specimens for highest resolution. This condenser is also suitable for dark field contrast at objective apertures of up to 0.40.

Including motorized or manual aperture diaphragm.

Possibility to mount motorized or manual polarizer

Contrasting Techniques: BF, PH, DF, Pol, DIC

Magnifications: 4x up to 100x.

### Manual S28/0.55 with fixed condenser head

- Coded manual condenser base with fixed mount 11525373
- Condenser head S28/0.55 11505234
- Light ring set for PH and DF contrast S23–S28 11521505
- Manual polarizer holder including polarizer 11522103

### Motorized S28/0.55 with fixed condenser head

- Motorized condenser base with fixed mount 11525372
- Condenser head S28/0.55 11505234
- Light ring set for PH and DF contrast S23–S28 11521505
- Motorized polarizer holder including polarizer 11522120

## S70 Condenser System (Type 2)

The manual S70/0.30 condenser features a free working distance of 70 mm, a numerical aperture of 0.30 and is particularly suitable for specimens in high-volume containers. Including manual aperture diaphragm

Possibility to mount manual polarizer

Contrasting Techniques: BF, PH, Pol, DIC

Magnifications: 4x up to 40x

### Manual S70/0.30 with fixed condenser head

- Manual condenser base incl. head S70/0.30 11525089
- Light ring set for phase contrast S70/0.30 11522090
- Manual polarizer in round insert 11522094
- 32/43 mm adapter for Wollaston prisms 11522093
- Spare disc for manual S40 or S70 condenser 11522092

## S80 Condenser System (Type 3)

For fixed transmitted light arm. The manual S80/0.30 condenser features a free working distance of 80 mm, a numerical aperture of 0.30 and is particularly suitable for specimens in high-volume containers. A 4-position slider accommodates light rings. Including manual aperture diaphragm.

### S80/0.30 fixed condenser head

- Manual condenser lens S80/0.30 11521251
- 4 Position Slider for BF, PH0, PH1 and PH2 11521255

## TRANSMITTED LIGHT POLARIZATION CONTRAST

A revolving polarizer and an analyzer are required for transmitted light polarization contrast. Low-strain objectives (marked with a P in the objective list) enhance the quality of the polarization contrast.

A polarizer is required for Polarization Contrast

### For motorized condenser (Type1)

- Motorized polarizer holder including polarizer for S23/28 condenser 11522120

### For manual condenser (Type 1)

- Manual polarizer holder including polarizer for S23/28 condenser 11522103

### For manual condenser (Type 2)

- Manual polarizer in round insert for S40 condenser 11522094



Fig. 59: Polarizer and Analyzer

### Analyzer ICT/P

The analyzer is located below the objective turret. To insert the analyzer, remove the cover for the unused objective DIC disk opening.

(Component of stand 11-020-437-101-013)

- On slider 30 x 5 mm, fixed orientation 11522046

Alternatively for stands with fluorescence axis:

### Analyzer Block

This analyzer is built into an empty fluorescence filter block and can be rotated into the beam path using a motorized fluorescence disk.

The swing direction is fixed at 0° (east-west). 11525300

## TRANSMITTED LIGHT DIFFERENTIAL INTERFERENCE CONTRAST (DIC)

For transmitted light differential interference contrast a revolving polarizer, a fixed analyzer and a set of Wollaston prisms are required. The Leica DMI8 features both manual and motorized polarizer, analyzer, objective and condenser prism functions. The illumination-side IC prisms are inserted in the condenser disk and objective-side IC prisms in the objective prism disk. The Leica DMI8 realizes DIC at working distances of up to 70 mm (S70 condenser). Objectives with magnifications from 5x to 100x can be used for DIC depending to the condenser.

Fast (automatic) switching between DIC, brightfield and phase contrast is possible at all times without the need for DIC prisms to remain in the beam path. For valid combinations of prisms, condensers and objectives, please refer to the objective list. <http://www.leica-microsystems.com/objectives> Coded objective turrets recognize the installed objectives. The motorized objective prism disk selects the correct objective prism and sets the bias. The analyzer is automatically positioned in the beam path by the fluorescence disk. In addition, the luminous intensity, aperture diaphragm – and in the case of a motorized transmitted light axis, the field diaphragm – are automatically set to the required values. The condenser head automatically swings in and out as necessary. The user can adjust and overwrite the pre-set values at any time. Note: The S40 Condenser is not designed for DIC.



Fig. 60: Motorized DIC objective prism disk

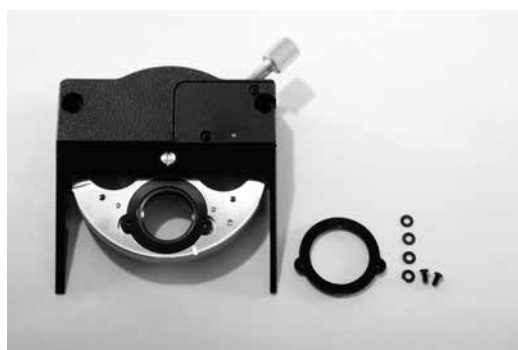


Fig. 61: Manual DIC objective prism disk



Fig. 62: DIC condenser prisms



Fig. 63: Objective prism D

## DIC Turret

- Manual DIC objective system prism disk, 4 positions 11522123
- Manual coded DIC objective system prism disk, 4 positions 11525117
- Motorized coded DIC objective system prism, disk 4 positions 11525118

A polarizer is required for Differential Interference Contrast

## For motorized condenser (Type1)

- Motorized polarizer holder including polarizer for S23/28 condenser 11522120

## For manual condenser (Type 1)

- Manual polarizer holder including polarizer for S23/28 condenser 11522103

## For manual condenser (Type 2)

- Manual polarizer in round insert for S40 condenser 11522094

## Analyzer ICT/P

The analyzer is located below the objective turret. To insert the analyzer, remove the cover for the unused objective DIC disk opening. (Component of stand 11-020-437-101-013)

- On slider 30 x 5 mm, fixed orientation 11522046

Alternatively for stands with fluorescence axis:

## Analyzer Cube

This analyzer is built into an empty fluorescence filter cube and can be rotated into the beam path using a motorized fluorescence disk.

The swing direction is fixed at 0° (east-west). 11525300

## Wollaston prisms

### Objective prisms

- IC objective prism B1 (narrow splitting, resolution optimized) 11555007
- IC objective prism C (medium splitting, good compromise) 11555009
- IC objective prism C1 (narrow splitting, resolution optimized) 11522038
- IC objective prism C2 (wide splitting, contrast optimized) 11522039
- IC objective prism D (wide splitting - high contrast) 11555010
- IC objective prism D1 (narrow splitting - high resolution) 11555056
- IC objective prism E (wide splitting, contrast optimized) 11555046

### Condenser prisms (Ø 23 mm)

- IC condenser prism K3 11521594
- IC condenser prism K11 11521545

### Condenser prisms (Ø 32 mm)

- IC condenser prism K2 11555016
- IC condenser prism K3 11555017
- IC condenser prism K4 11555018
- IC condenser prism K5 11555019
- IC condenser prism K6 11521521
- IC condenser prism K7 11521522
- IC condenser prism K8 11521523
- IC condenser prism K9 11555030
- IC condenser prism K10 11521524
- IC condenser prism K11 11521529
- IC condenser prism K16 11522037
- IC condenser prism K17 11555091

For the manual S70 condensers turrets with 43 mm openings a 32/43 adapter is necessary for each of the prisms (max 3)

**Reducing diameter adapter 32/43** 11522093

## C-MOUNT ADAPTER

You can adapt analog and digital cameras to all ports with documentation output. The C and B-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.

	Recorded picture diagonal in mm with				Order No.
	1-inch camera	2/3-inch camera	1/2-inch camera	1/3-inch camera	
<b>Without zoom magnification, for 1-chip cameras only:</b>					
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
<b>With variable magnification level (Vario TV adapter) for 1–3 chip cameras:</b>					
C-mount 0.32–1.6x HC	—	—	19*–5	18–3.8	11541517
<b>Without variable magnification level, for 1-3 chip cameras:</b>					
C-mount adapter 1x	—	—	16	12	11543706
B-mount adapter 1x	—	—	16	12	11543702
C-mount adapter 1x for sCMOS					11541546

\* available beginning with Vario factor 0.42 x!



Fig. 64: TV adapter



Fig. 65: Screw cap



Fig. 66: DIC cover



Fig. 67: Analyzer opening cover



Fig. 68: Camera port cover

# ACCESSORIES

**Immersion oil, 10 ml**  
Free of natural fluorescence as per ISO 8036/1, refraction index  $n_e^{23} = 1.5180 \pm 0.005$ , dispersion  $v_e^{23} = 44 \pm 2$  11513859

**Immersion oil, 20 ml**  
as per ISO 8036/1, refraction index  $n_e^{23} = 1.5180 \pm 0.005$ , dispersion  $v_e^{23} = 44 \pm 2$  11513860

**Immersion oil, 250 ml**  
as per ISO 8036/1, refraction index  $n_e^{23} = 1.5180 \pm 0.005$ , dispersion  $v_e^{23} = 44 \pm 2$  11513861

**Stage micrometer**  
Transmitted light 2 mm = 200 parts 11513106

**Stage micrometer**  
Incident light 1 mm = 100 parts 11563011

**Hg 100 W/2 burner** 11500321

**Xe high-pressure burner** 11500139

**Screw cap for empty objective positions**  
Component of stand (M25) 11 020-422-570-000  
Component of stand (M32) 11 020-422-557-000

**Cover for unused objective DIC disk opening**  
Component of stand 11 090-144-020-058

**Dust and light protection cover for polarizer opening**  
Component of stand 11 020-437-101-013

**Dust and light protection cover for camera port openings**  
Component of stand 11 020-387-556-009

**Ergonomic height compensation plate**  
A height compensation plate was developed to raise the viewing height by 23 mm or to raise the side camera ports for oversize cameras or spinning disks, or to use a microscope with an inactive bottom port on workbenches without openings. 11525200

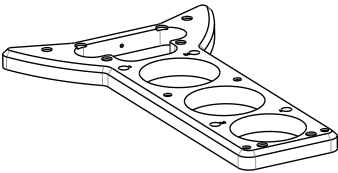


Fig. 69: Ergonomic height compensation plate

## Focusing telescope

A focusing telescope is required when adjusting phase contrast, modulation contrast or differential interference contrast in order to view the rear focal plane of the objective.

The following tubes:

- Binocular ergonomic tube with Bertrand lens
  - Trinocular ergonomic tube with Bertrand lens
- are already equipped with a focusing telescope.

- Focusing telescope

11 505 070

## DIGITAL IMAGE DOCUMENTATION

### Leica digital camera system DC

Monochrome and color digital cameras for all applications  
(see [www.leica-microsystems.com](http://www.leica-microsystems.com))

## SOFTWARE

### Leica LAS X

#### Leica LAS 4.6 or higher

(see [www.leica-microsystems.com](http://www.leica-microsystems.com))

## ANTI-VIBRATION

Large antivibration table for Leica DMi8  
System Desk

11525405  
11640255



Fig. 70: Focusing telescope

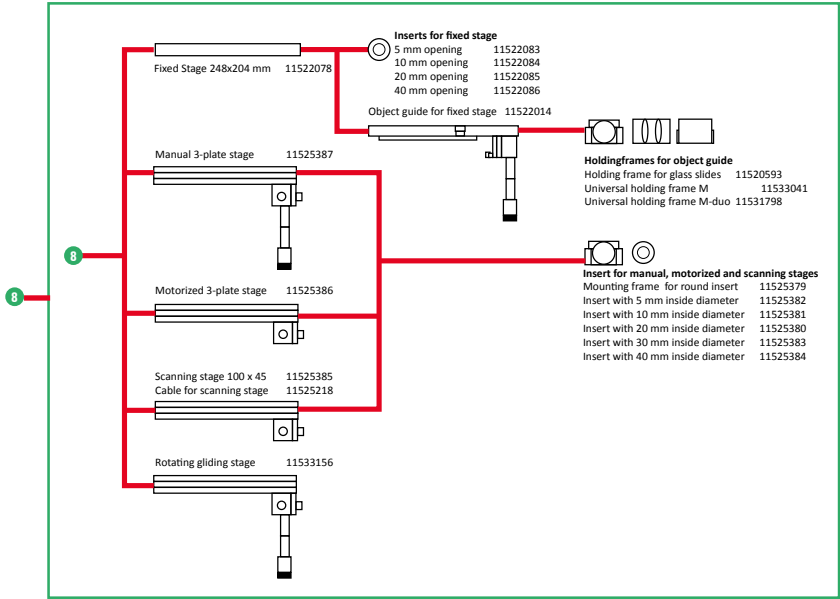


Fig. 71: Leica DFC Microscope Camera

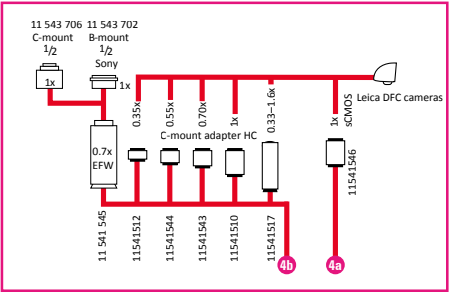
# SYSTEM OVERVIEW

## LEICA DMI8 M/C/A

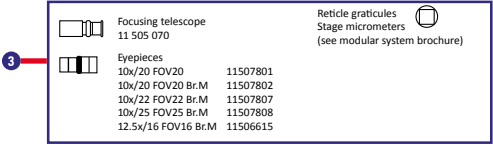
### Stages



### Camera Adapter



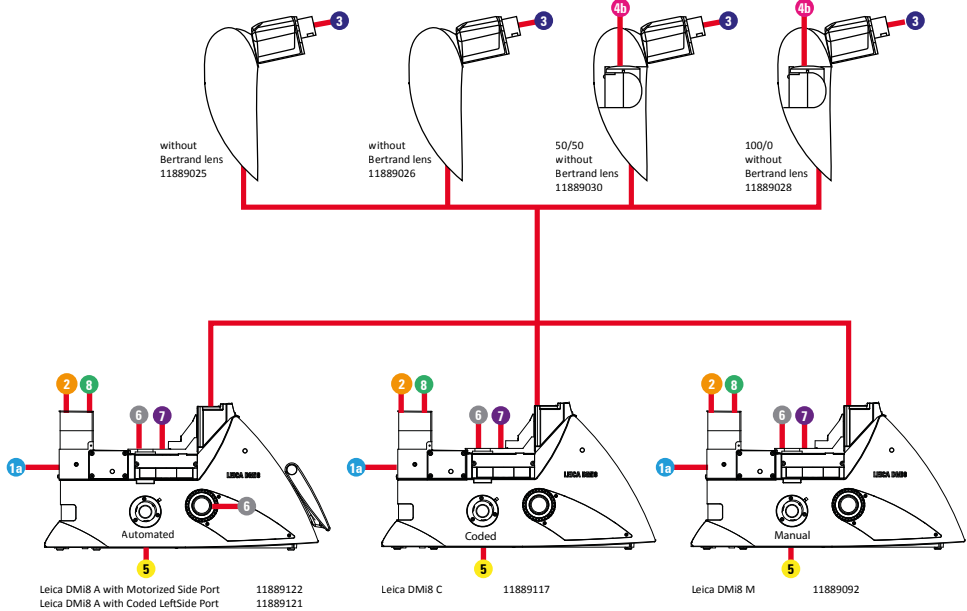
### Eyepieces



### Bino FixTube

### Bino ErgoTube

### Trino ErgoTubes



### Mot. Side Ports for Leica DMI8 A

No Port (Compensation Module)	11888256	SP Prism 100% L	11888259
		SP Prism 80% L	11888262
		SP Prism 50% L	11888264
Motorized Port LEFT	11889046		
Motorized Port LEFT/RIGHT	11889048	SP Prism 100% R	11888258
		SP Prism 80% R	11888261
Motorized Port RIGHT	11889047	SP Prism 50% R	11888263

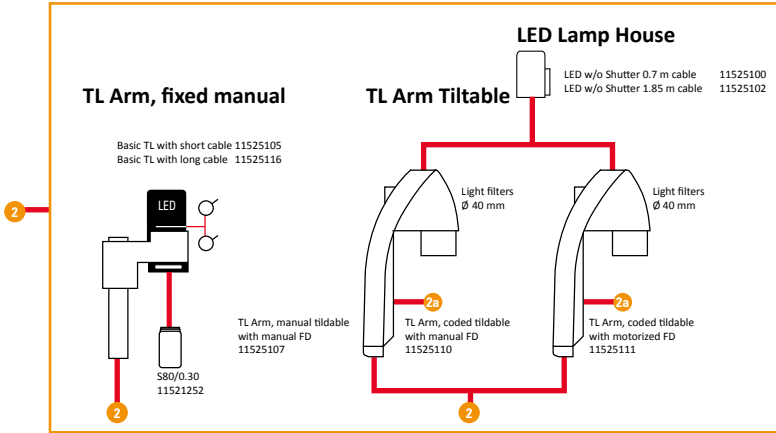
### Coded Side Ports for Leica DMI8 C/A

No Port (Compensation Module)	11888256
Coded Port LEFT 100 %	11889045
Coded Port LEFT 80 %	11889044

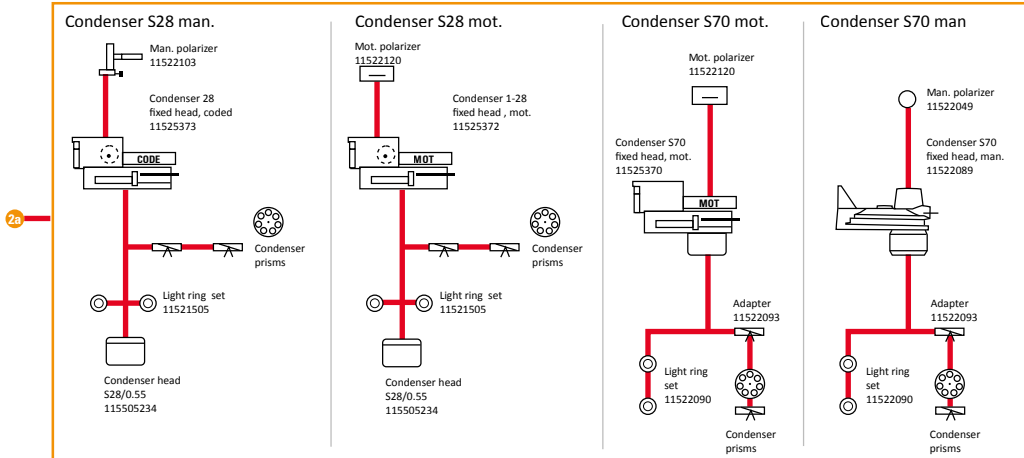
### Manual Side Ports for Leica DMI8 M/C

No Port (Compensation Module)	11888256
Manual Port LEFT 100 %	11889043
Manual Port LEFT 80 %	11889042

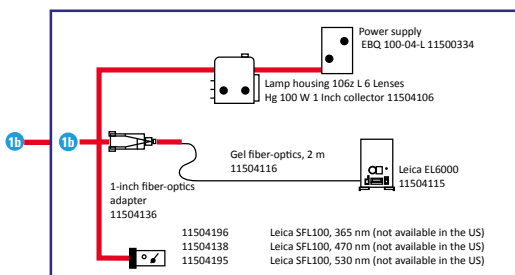
## Transmitted-Light Arms



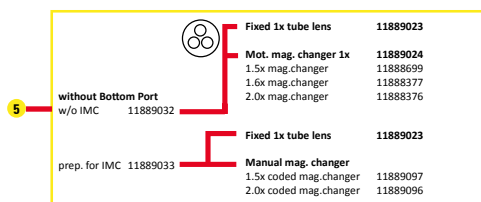
## Condensers



## Fluorescence Lamp Housings



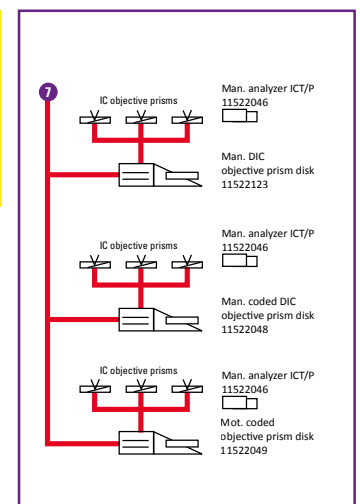
## Optic Carrier/Mag. Changer



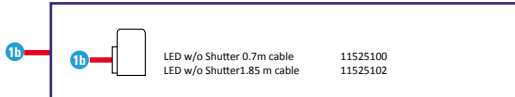
## Reflector Turret

Manual	11889020
Coded	11889021
Motorized	11889022
Coded 2-position	11889098
BF Reflector	11565053
Smith Reflector	11565055
DF Reflector	11565054
ICR Reflector	11525375
POL Reflector	11525358

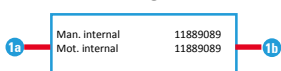
## DIC systems



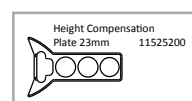
## Incident Light LED Lamp Housings



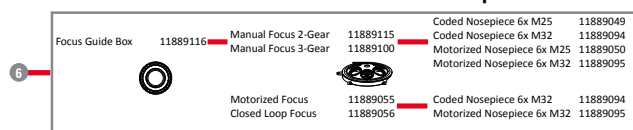
## Incident Light Axis



## Ergonomic Base Plate

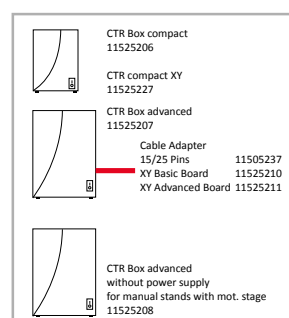


## Focus

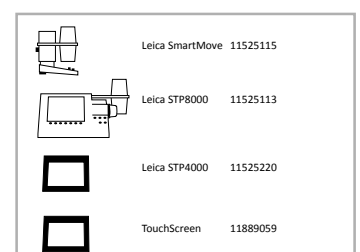


## Nosepiece

## CTR Boxes



## Control Elements



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