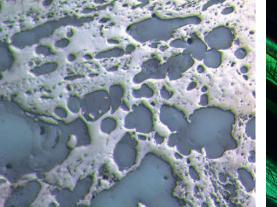


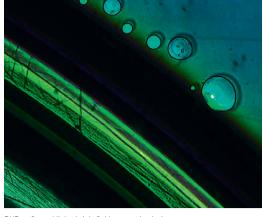
# Leica DM750 M

Shine a New Light on Industrial Samples





Polished light metal, reflected light, brightfield-oblique contrast



DVD, reflected light, brightfield, crossed polarizer

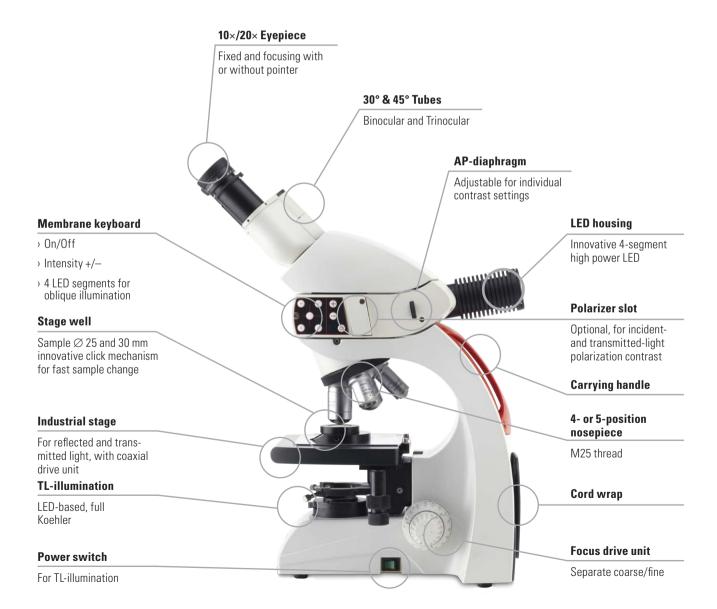


Polished metal sample, reflected light, brightfield



# Simply Microscopy for Routine tasks in Materials QC and Teaching

An easy-to-use microscope makes a laboratory function more efficiently. The user can concentrate on the task at hand rather than on complex microscope functions. The Leica DM750 M is an entry-level materials microscope for brightfield, oblique, and polarized light. It is specifically designed to serve the needs of routine quality control and materials analysis in industry as well as the general educational needs in universities, and technical colleges.



### Performance Reloaded

The Leica DM750 M combines numerous innovative features to create a unique solution for routine applications in metallography and general materials microscopy.

### REFLECTED LIGHT ILLUMINATOR WITH CUTTING-EDGE LED ILLUMINATION

- Built-in adjustable aperture diaphragm, produces bright, crisp, and maintenance-free lighting for all samples.
- Ergonomically-positioned membrane-keyboard for easy, intuitive operation of all reflected light settings.
- Innovative 4-segment LED provides bright and homogeneous BF and oblique illumination (quarter / half, direction selectable).
- > Intuitive control for LED-light intensity.
- Power on/off switch distinctly separated from other keys to avoid operating errors.
- Reflected light illuminator incorporates two slots that allows the use of a polarizer and analyzer for polarized light applications.



#### PERFECT LIGHT

- LED illumination is used for reflected and transmitted light. It provides cool, white light with a lifetime of over 20 years, thus saving the time and money spent to exchange halogen bulbs on conventional microscopes.
- Transmitted light Koehler field diaphragm for optimum illumination and contrast.
- > Optional condensor available.
- Patented time delay shutoff saves energy by automatically turning off the illumination after two hours of no use (TL only).





#### **UP TO 1000×**

- High precision 4- or 5-position objective nosepiece with M25 thread.
- Large selection of high performance objectives starting with HI PLAN EPI series.
- Standard magnification range between 50× and 500× as required by most industrial standards.
- > Even higher magnifications, e.g. 1000×, are possible.



#### HANDLING AT ITS BEST

- Universal stage with coaxial drive for reflected and transmitted light applications allows observation of polished and/or etched samples with heights of up to 30 mm.
- Special sample holders with a 25 mm or 30 mm sample diameters.
- > Object guide for precise X/Y positioning of the sample.



#### **EASY AND ERGONOMIC OPERATION**

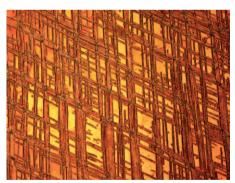
- 4- or 5-position nosepiece with rubber covered knurled ring for fast and easy change of objective magnification. The highly accurate machining of the nosepieces ensures parcentration of all objectives in use.
- 4 different tubes to fit the ergonomic needs of different users: 45° angle binocular or trinocular tube or,
  30° angle binocular or trinocular tube.
- All tubes have adjustable interpupillary distance and locking mechanisms for the eyepieces, avoiding loss / theft of equipment.
- The eyepieces with magnification factor 10 and FOV 20 are available as fixed and focusable to compensate different vision requirements for defective eyesight.

### **Brilliant Views with HD Imaging**

The ability to capture, analyze, archive, and share micro-images has always been an important task in the materials laboratory. Leica Microsystems offers an extensive range of advanced digital imaging solutions to exactly match camera and software performance to the needs of your specific application.

#### LEICA MICROSYSTEMS IMAGING

- A large variety of Leica microscope cameras including Full HD live image. Leica DFC Cameras provide high resolution pictures and fast live images.
- Leica Application Suite (LAS) software is the modular platform for easy camera control, image capture, annotation, measurement, and documentation.
- Customize your own imaging solution using a wide selection of optional LAS software modules.
- Store and recall: The Microscope Assistant module for instantly perfect results for all samples.
- Expert modules for easy-to-use Grainsizing and Phase analysis according to international norms and standards.
- The modular design of the system allows easy upgrades and service.
- Trinocular viewing tubes and c-mount adapters provide the versatility to use stand-alone cameras, which opens the door to unlimited imaging possibilities.



Copper-zinc deformation line



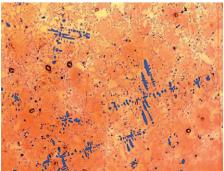
Grain sizing reticle overlay



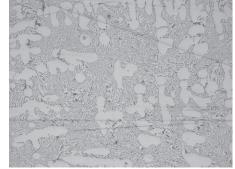
Polished section of rock



Weld structure, brightfield



Brass sample, brightfield



Aluminum-silicon, brightfield



### Full HD 1080



# Specifications

STAND	STAGE
Shape of the stand protects controls	Stages available for left- and right-hand operation
Stand construction – die-cast aluminum	Integrated coaxial drive for X/Y movement
Adjustable Koehler field diaphragm (TL)	Stage surface 185 mm (150 mm front) × 140 mm (W × D)
Centerable and focusable condenser mount	Stages prepared to take special sample holders (stage wells)
External fuses	Rounded stage edges
Knurled nosepieces	Non-extending rack
	Vernier for X/Y coordinates
REFLECTED LIGHT AXIS	Wear-resistant stage surface
4-segment LED illumination for:	
Incident light brightfield	SPECIAL SAMPLE HOLDERS FOR EMBEDDED METALLOGRAPHIC SALES
Oblique contrast	(STAGE WELLS)
Polarization contrast	Stage well for one inch samples
Built-in adjustable aperture diaphragm	Stage well $\varnothing$ 30 mm for maximum sample height = 30 mm
MEMBRANE KEYBOARD CONTROL	OBJECTIVES
3 LED segment control for selection and rotation of illumination direction	Infinity platform
LED-light intensity	HI PLAN or N PLAN series for FOV 20
Power on/off switch	Objective labeling laser engraved
<u> </u>	M25 nosepiece thread
POLARIZER/ANALYZER SLOT FOR POLARIZED LIGHT	
<u> </u>	FOCUS
TRANSMITTED LIGHT	Low position focus controls
Built-in LED illumination – 25.000 hours service lifetime	Self-adjusting focus mechanism
Full Koehler field diaphragm (with condensor)	300 microns per fine focus rotation
Optional Abbe condensor (NA 0.9)	Calibrated in 3 micron increments
Continuous intensity adjustment	Weighted focus knobs
2 hours auto off (can be disabled or enabled)	IMAGING
EYEPIECES	Trinocular tubes available (50% / 50% light split)
High eyepoint	C-mount adapters with standard Leica Microsystems mount
10×/20 (20 mm field of view)	Leica DFC cameras or Leica ICC50 HD integrated camera
Crosshair eyepiece with 45° marks, scale, and orientation feature	
Available fixed or focusing	EZSTORE™
Focusing eyepieces with reticule holder for 21 mm reticule	Vertical handle
Foldable eyeguards	Undercut in front of stand
30 mm mounting diameter	Cord wrap
Other eyepiece magnification factors also available	Vertical cord attachment to stand
	AGTREAT™
	Anti-microbial surfaces
	CERTIFICATIONS
	cULus, CE, RoHS

### **Recommended Outfits**

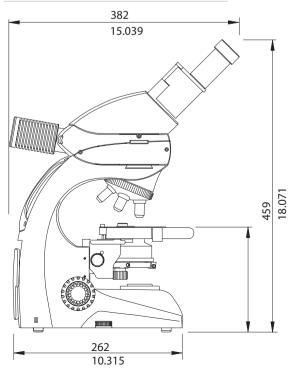
#### Leica DM750 M with 4-position nosepiece for reflected & oblique light including industrial stage & stage wells

<b>.</b>		
STAND		Quantity
13 613 100	Leica DM750 M with 4-position nosepiece	1
TUBES		
13 613 521	30° Binocular tube	1
EYEPIECES	S	
13 613 532	10×/20 focusing eyepiece with eyeguard	1
13 613 530	10×/20 eyepiece with eyeguard	1
ILLUMINA	TION	
13 613 165	Incident light axis with LED illumination	1
STAGE WE	LL PLATES	
13 613 167	Stage well for small diameter samples	1
13 613 168	Stage well for large diameter samples	1
OBJECTIV	ES	
11 566 071	Objective HI PLAN EPI 5×/0.12	1
11 566 069	Objective HI PLAN EPI 10×/0.25	1
11 566 070	Objective HI PLAN EPI 20×/0.40	1
11 566 072	Objective N PLAN EPI 50×/0.75	1

**POWER CORD** NOT INCLUDED: Must be ordered separately 2

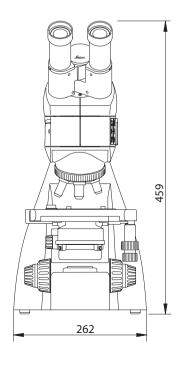
### **Dimensions**

Dimensions in mm/inch

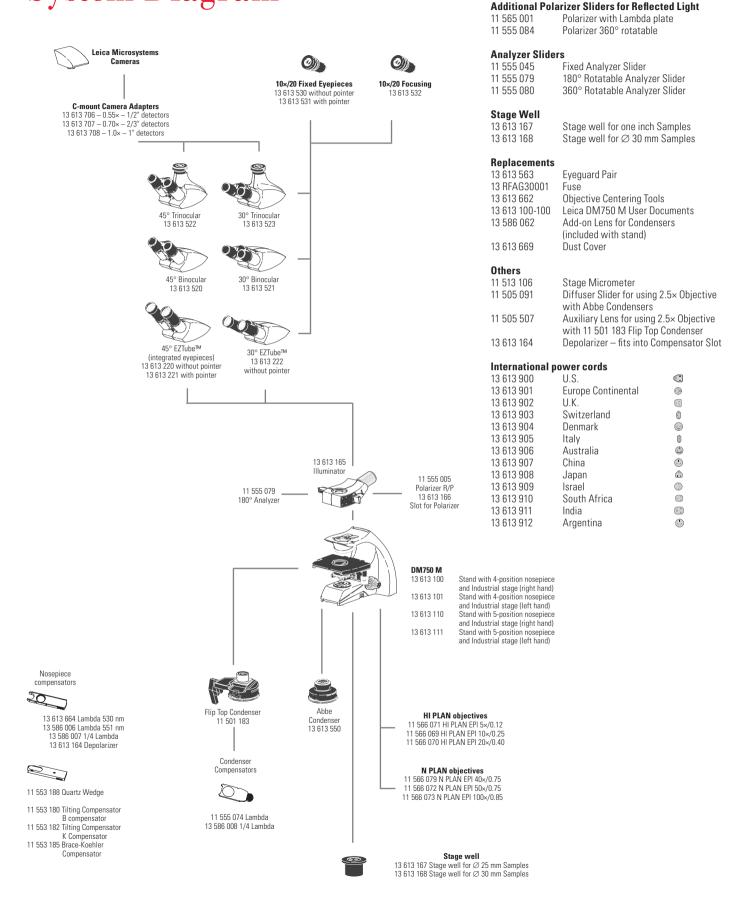


### Leica DM750 M with 5-position nosepiece for RL, TL, oblique & polarized light including industrial stage & stage wells, Leica DFC295

STAND		Quantity
13 613 110	Leica DM750 M with 5-position nosepiece &	1
	industrial stage (right hand)	
TUBES / M	OUNT / CAMERA	
13 613 523	30° Trinocular tube	1
13 613 707	C-mount 0.7×	1
12 730 209	Leica DFC295 microscope camera kit	1
EYEPIECES	3	
13 613 532	10×/20 focusing eyepiece with eyeguard	1
13 613 530	10×/20 eyepiece with eyeguard	1
ILLUMINA	TION	
13 613 170	Reflected light illuminator kit LED	1
	(RL-Axis, slot, polarizer & analyzer)	
STAGE WE	LL PLATES	
13 613 167	Stage well for small diameter samples	1
13 613 168	Stage well for large diameter samples	1
13 613 550	Abbe condensor	1
OBJECTIV	ES	
11 566 071	Objective HI PLAN EPI 5×/0.12	1
11 566 069	Objective HI PLAN EPI 10×/0.25	1
11 566 070	Objective HI PLAN EPI 20×/0.40	1
11 566 072	Objective N PLAN EPI 50×/0.75	1
11 566 073	Objective N PLAN EPI 100×/0.75	1
POWER CO	<b>DRD</b> NOT INCLUDED: Must be ordered separately	2



### System Diagram



#### 11

### Clean and Green

### We actively implement ways to make our environment cleaner and safer for this generation and the next:

- > All packaging is completely recyclable.
- > No lead content in any of the glass components.
- We are constantly optimizing our logistics chain to keep the  ${\rm CO}_2$  footprint as low as possible.
- › AgTreat™ helps prevent the spread of disease via the microscope surfaces and leads to a healthier laboratory environment.
- All products have been tested by independent safety laboratories and carry the cULus and CE mark to indicate their design for enhanced safety.
- All products are RoHs compliant, which means all electrical components meet any restrictions on the use of hazardous substances.

#### See more at www.leica-microsystems.com/education:

- > Interactive tour for earth and material science courses
- > E-Series of stereomicroscopes for low magnification inspection, dissecting, and image capture
- > Leica DM500 and Leica DM750 for life science education
- > Leica DM750 P polarizing microscope for materials science
- A selection of higher level microscopes for research



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