Living up to Life







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
- Power to the LED reflected light illuminator is provided via a USB cable from the 5 V/1.5 A USB power connector on the rear of the Leica DM750 M stand. This saves the cost of an external power supply plus reduces the complexity at the workstation.

### 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 1,000×

- 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. 1,000×, 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



Brass sample, brightfield

Polished section of rock



Aluminum-silicon, brightfield

Weld structure, brightfield









# 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		
5 V/1.5 A USB power supply	Vernier for X/Y coordinates		
	Wear-resistant stage surface		
REFLECTED LIGHT AXIS			
4-segment LED illumination for:	SPECIAL SAMPLE HOLDERS FOR EMBEDDED METALLOGRAPHIC SALES		
Incident light brightfield	(STAGE WELLS)		
Oblique contrast	Stage well for one inch samples		
Polarization contrast	Stage well 30 mm for maximum sample height = 30 mm		
Built-in adjustable aperture diaphragm			
	OBJECTIVES		
MEMBRANE KEYBOARD CONTROL	Infinity platform		
3 LED segment control for selection and rotation of illumination direction	HI PLAN or N PLAN series for FOV 20		
LED-light intensity	Objective labeling laser engraved		
Power on/off switch	M25 nosepiece thread		
POLARIZER/ANALYZER SLOT FOR POLARIZED LIGHT	FOCUS		
	Low position focus controls		
TRANSMITTED LIGHT	Self-adjusting focus mechanism		
Built-in LED illumination – 25.000 hours service lifetime	300 microns per fine focus rotation		
Full Koehler field diaphragm (with condensor)	Calibrated in 3 micron increments		
Optional Abbe condensor (NA 0.9)	Weighted focus knobs		
Continuous intensity adjustment			
2 hours auto off (can be disabled or enabled)	IMAGING		
	Trinocular tubes available (50% / 50% light split)		
EYEPIECES	C-mount adapters with standard Leica Microsystems mount		
High eyepoint	Leica cameras		
10×/20 (20 mm field of view)	520700520		
Crosshair eyepiece with 45° marks, scale, and orientation feature	EZSTORE™		
Available fixed or focusing	Vertical handle		
Focusing eyepieces with reticule holder for 21 mm reticule	Undercut in front of stand		
Foldable eyeguards	Cord wrap		
30 mm mounting diameter	Vertical cord attachment to stand		
Other eyepiece magnification factors also available	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

STAND		Quantity
13 613 115	Leica DM750 M with 4-position nosepiece	1
TUBES		
13 613 521	30° binocular tube	1
EYEPIECES	5	
13 613 532	10×/20 focusing eyepiece with eyeguard	1
13 613 530	10×/20 eyepiece with eyeguard	1
ILLUMINA	FION	
13 613 169	Incident light axis with LED illumination	1
<b>STAGE WE</b>	LL PLATES	
13 613 167	Stage well for small diameter samples	1
13 613 168	Stage well for large diameter samples	1
OBJECTIVES		
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 EPL50x/0.75	1

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

1

# Dimensions

# 

#### Leica DM750 M with 5-position nosepiece for RL, TL, oblique & polarized light including industrial stage & stage wells, Leica DMC2900

STAND		Quantity
13 613 117	Leica DM750 M with 5-position nosepiece &	1
	industrial stage (right hand)	
TUBES / M	OUNT / CAMERA	
13 613 523	30° Trinocular tube	1
13 613 706	C-mount 0.55×	1
12 730 466	Leica DMC2900 camera	1
EYEPIECES	3	
13 613 532	10×/20 focusing eyepiece with eyeguard	1
13 613 530	10×/20 eyepiece with eyeguard	1
ILLUMINA	FION	
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 CORD** NOT INCLUDED: Must be ordered separately

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# System Diagram



#### ıt

Additional Pola	arizer Sliders for Reflected Lig	ht
11 565 001	Polarizer with lambda plate	
11 555 084	Polarizer 360° rotatable	
Analyzer Slide	rs	
11 555 045	Fixed analyzer slider	
11 555 079	180° rotatable analyzer slider	
11 555 080	360° rotatable analyzer slider	
o		
Stage well		
13 613 167	Stage well for one inch samples	
13 613 168	Stage well for $\oslash$ 30 mm sample	S
Deuleseure		
Replacements	Free evened as a line	
13 013 503	Eyeguard pair	
13 RFAG30001	Fuse	
13 613 100-100	Leica DIVI750 IVI user documents	
13 586 062	Add-on lens for condensers	
10.010.000	(Included with stand)	
13 013 009	Dust cover	
Others		
Uliers	Staga miaramatar	
	Diffuser elidenter a 2 F eli	4
11 202 081	Diffuser slider for using 2.5× obj	ective
	with Abbe condensers	
11 505 507	Auxiliary lens for using 2.5× objective	
	with 11 501 183 hip top condens	er
International P	ower Cords	
12 612 000		
12 612 001	Europa Continental	
12 612 002		
12 612 002	Switzorland	
12 612 004	Dopmark	
12 013 304		
12 013 303	Australia (1)	
10 010 900	Australia 🚇	
10 010 907		
13 013 900		
10 010 909	South Africa	
10 010 010	India	
13 013 911	Argonting (1)	
19 019 917	Argentilla 🕑	

13 115	Stand with 4-position nosepiece
	and Industrial stage (right hand)
13 116	Stand with 4-position nosepiece
	and Industrial stage (left hand)
13 117	Stand with 5-position nosepiece
	and Industrial stage (right hand)
13 118	Stand with 5-position nosepiece
	and Industrial stage (left hand)

### **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 CO<sub>2</sub> footprint as low as possible.
- AgTreat<sup>™</sup> 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



The statement by Ernst Leitz in 1907, "With the User, For the User," describes the fruitful collaboration with end users and driving force of innovation at Leica Microsystems. We have developed five brand values to live up to this tradition: Pioneering, High-end Quality, Team Spirit, Dedication to Science, and Continuous Improvement. For us, living up to these values means: Living up to Life.

Leica Microsystems operates globally in three divisions, where we rank Leica Microsystems - an international company with a strong network with the market leaders.

### LIFE SCIENCE DIVISION

The Leica Microsystems Life Science Division supports the imaging needs of the scientific community with advanced innovation and technical expertise for the visualization, measurement, and analysis of microstructures. Our strong focus on understanding scientific applications puts Leica Microsystems' customers at the leading edge of science.

### **INDUSTRY DIVISION**

The Leica Microsystems Industry Division's focus is to support customers' pursuit of the highest quality end result. Leica Microsystems provide the best and most innovative imaging systems to see, measure, and analyze the microstructures in routine and research industrial applications, materials science, quality control, forensic science investigation, and educational applications.

### MEDICAL DIVISION

The Leica Microsystems Medical Division's focus is to partner with and support surgeons and their care of patients with the highest-quality, most innovative surgical microscope technology today and into the future.

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Brazil · São Paulo	+55	11 2764-2411	11 2764-2400
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