

# LMC4 SERIES Upright Microscope



Version 2.0

## Brochure

# LMC-4000 SERIES

## FOR CLINICAL AND RESEARCH



-  Corrected for eyeglasses
-  Carrying Handle
-  LED Illumination
-  Rackless Stage

### OPTICAL SYSTEM

- Infinity corrected optical system
- Plan Achromat objectives standard, Plan Fluor (optional)
- Wide range of magnifications: 2X, 4x, 10x, 20x, 40x, 60x & 100x
- Anti-reflective coatings on optics
- Sharp images with bright natural color
- Parcentric and parfocal objectives

### KEY FEATURES

- Y-Shaped body for maximum stability  
Carrying handle
- Stable main body
- Brightfield, Darkfield, Polarization, Metallurgical, Phase Contrast, & Fluorescence Contrast Methods
- High contrast, broad beam optical design
- Modular design allows for flexibility in system configuration 100% customizable for every need

### TRINOCULAR OPTICS

- 10x Eyepieces with 22mm widefield eyepieces
- 50 to 75mm interpupillary distance
- Light splitting ratio 0:100/50:50 (0:100/100:0 on FL models)
- Rubber eyecups
- Diopter adjustment
- Tilting Ergonomic head and standard fixed eyepiece configurations available

## STAND

- Large, sturdy base designed for the lab environment
- Rack and pinion focusing mechanism for smooth focus control
- Rackless, X/Y mechanical stage with adjustable tension
- Built-in carrying handle for easy transportation of microscope
- Coarse and fine focus adjustment
- Reversed quintuple nosepiece
- Full Koehler illumination with field and iris diaphragm

## MULTI-OBSERVATION CONFIGURATIONS

- LED Pointer
- 12V/100W Illumination
- Supports up to 5 heads



	CAT. NO.	HEAD	OBJECTIVES	OPTICS	FOV	F-CONTROLS	KOEHLER	CONDENSER	ILLUM	STAGE	OBJ TURRET
3 HEAD	LMC4BF1	BNOC	4X, 10X, 40X, 100X <small>oil</small>	INFINITY, FL	22MM	COARSE & FINE	FULL	1.2 N.A. ABBE, WITH IRIS AND FLIP OUT LENS WITH 0.9 N.A.	5W LED	RACKLESS X/Y MECH STAGE	5 POS
	LMC4BF7	ERGO BNOC	2X, 4X, 10X, 40X, 100X <small>oil</small>	INFINITY, FL	22MM	COARSE & FINE	FULL	1.2 N.A. ABBE, WITH IRIS AND FLIP OUT LENS WITH 0.9 N.A.	5W LED	RACKLESS X/Y MECH STAGE	5 POS
	LMC4PA1	TILTING ERGO TRNDC	2X, 4X, 10X, 40X, 100X <small>oil</small>	INFINITY, FL FLUOR	22MM	COARSE & FINE	FULL	1.2 N.A. ABBE, WITH IRIS AND FLIP OUT LENS WITH 0.9 N.A.	5W LED	RACKLESS X/Y MECH STAGE	45 POS
	LMC4PA2	TILTING ERGO TRNDC	2X, 4X, 10X, 40X, 100X <small>oil</small>	INFINITY, FL	22MM	COARSE & FINE	FULL	1.2 N.A. ABBE, WITH IRIS AND FLIP OUT LENS WITH 0.9 N.A.	5W LED	RACKLESS X/Y MECH STAGE	5 POS
GOUT	LMC4HMS	TRNDC	4X, 10X, 40X, 50X <small>oil</small> , 100X <small>oil</small>	INFINITY, FL	22MM	COARSE & FINE	FULL	1.2 N.A. ABBE, WITH IRIS AND FLIP OUT LENS WITH 0.9 N.A.	5W LED	RACKLESS X/Y MECH STAGE	5 POS
	LMC4GT4	TRNDC	4X, 10X, 40X, 50X <small>oil</small> , 100X <small>oil</small>	INFINITY, FL	22MM	COARSE & FINE	FULL	1.2 N.A. ABBE, WITH IRIS AND FLIP OUT LENS WITH 0.9 N.A. - GOUT KIT	5W LED	RACKLESS X/Y MECH STAGE	5 POS
Darkfield	LMC4DF3	TRNDC	2X, 4X, 10X, 20X, 40X	INFINITY, FL	22MM	COARSE & FINE	FULL	1.25 N.A. ABBE, DARKFIELD OIL UP TO 40X	5W LED	RACKLESS X/Y MECH STAGE	5 POS
	LMC4DF4	TRNDC	4X, 10X, 20X, 40X, 100X <small>oil</small>	INFINITY, FL	22MM	COARSE & FINE	FULL	1.25 N.A. ABBE, DARKFIELD OIL UP TO 100X	5W LED	RACKLESS X/Y MECH STAGE	5 POS
PHASE/FL	LMC4PH18	TRNDC	4X BF, 100XPH, 200XPH, 400XPH, 100XPH <small>oil</small>	INFINITY, PL PH	22MM	COARSE & FINE	FULL	1.25 N.A. ABBE, S-POSITION PHASE CONTRAST TURRET	5W LED	RACKLESS X/Y MECH STAGE	5 POS
	LMC4-AB3	TRNDC	4X BF, 100XPH, 200XPH, 400XPH	INFINITY, PL PH	22MM	COARSE & FINE	FULL	1.25 N.A. ABBE, S-POSITION PHASE CONTRAST TURRET	5W LED	RACKLESS X/Y MECH STAGE	5 POS
2 HEAD	LMC4MD2	TRNDC (MAIN) BNOC (OBSERVER)	2X, 4X, 10X, 40X, 100X <small>oil</small>	INFINITY, FL	22MM	COARSE & FINE	FULL	1.2 N.A. ABBE, WITH IRIS AND FLIP OUT LENS WITH 0.9 N.A.	12V/100W HAL	RACKLESS X/Y MECH STAGE	5 POS
3 HEAD	LMC4MD3	TRNDC (MAIN) BNOC (OBSERVER)	2X, 4X, 10X, 40X, 100X <small>oil</small>	INFINITY, FL	22MM	COARSE & FINE	FULL	1.2 N.A. ABBE, WITH IRIS AND FLIP OUT LENS WITH 0.9 N.A.	12V/100W HAL	RACKLESS X/Y MECH STAGE	5 POS

# LMC-4000 SERIES

## FLUORESCENCE



-  Corrected for eyeglasses
-  Carrying Handle
-  LED Illumination
-  Rackless Stage
-  Plan Fluor Objectives

### KEY FEATURES

- Y-Shaped body for maximum stability
- Carrying handle
- Stable main body
- Brightfield, Darkfield, Polarization, Metallurgical, Phase Contrast, & Fluorescence Contrast Methods
- High contrast, broad beam optical design
- Modular design allows for flexibility in system configuration
- 100% customizable for every need

### OPTICAL SYSTEM

- Infinity corrected optical system
- Plan Achromat objectives standard, Plan Fluor (optional)
- Wide range of magnifications: 2X, 4x, 10x, 20x, 40x, 60x & 100x
- Anti-reflective coatings on optics
- Sharp images with bright natural color
- Parcentric and parfocal objectives

## LED FLUORESCENCE

- 25,000 hour life span
- No alignment needed
- LED wave length specific to filter set
- Adjustable light intensity
- High signal to noise ratio
- Stable light excitation energy
- No warm-up or cool down time
- Produces no harmful UV light
- Powered by optional battery pack



- 4 Channel Fluorescence
- Hard Coated Filters
- Brightness Control
- Wave-Length Specific LED

## MERCURY FLUORESCENCE

- Full spectrum illumination
- 100 watt mercury bulb
- Digital power supply
- Centerable lamp housing
- 6 position fluorescence turret
- Brightfield and fluorescence observation
- Fluorescence light block

- Full Spectrum Fluorescence
- Hard Coated Filters
- Mercury Bulb



	CAT. NO.	HEAD	OBJECTIVES	OPTICS	FOV	F-CONTROLS	KOEHLER	CONDENSER	ILLUM	STAGE	OBJ TURRET	GFP FILTER	RFP FILTER	DAPI FILTER
LED FL	LMC4FL4	TRINOC	4X, 10X, 20X, 40X, 100X oil	INFINITY, PL FLUOR	22MM	COARSE & FINE	FULL	1.2 N.A. ABBE, WITH IRIS AND FLIP OUT LENS WITH 0.9 N.A.	5W LED	RACKLESS X/Y MECH STAGE	5 POS	<span style="color: blue;">●</span> 470 +/- 20 <span style="color: green;">●</span> 525 +/- 20	<span style="color: yellow;">●</span> 560 +/- 20 <span style="color: red;">●</span> 645 +/- 37	<span style="color: purple;">●</span> 865 +/- 25 <span style="color: blue;">●</span> 960 +/- 25
MERCURY FL	LMC4FL2	TRINOC	4X, 10X, 20X, 40X, 100X oil	INFINITY, PL FLUOR	22MM	COARSE & FINE	FULL	1.2 N.A. ABBE, WITH IRIS AND FLIP OUT LENS WITH 0.9 N.A.	5W LED	RACKLESS X/Y MECH STAGE	5 POS	<span style="color: blue;">●</span> 470 +/- 20 <span style="color: green;">●</span> 525 +/- 20	<span style="color: yellow;">●</span> 560 +/- 20 <span style="color: red;">●</span> 645 +/- 37	<span style="color: purple;">●</span> 865 +/- 25 <span style="color: blue;">●</span> 960 +/- 25

# LMC-4000 SERIES

## POLARIZATION

COMPOUND MICROSCOPE



POLARIZATION



-  Corrected for eyeglasses
-  Carrying Handle
-  LED Transmitted Illumination
-  Stage Locking
-  Stress Free Objectives
-  50W Halogen

### KEY FEATURES

- Y-Shaped body for maximum stability- Carrying handle
- Can be purchased pre-configured or customized for your specific requirements
- High contrast, broad beam optical design
- Modular Transmitted and reflected light polarization for identification of crystallized structures in biological or material samples
- Can be purchased pre-configured or customized for your specific requirements
- Anti-corrosive and friction coated, graphite stage
- Intermediate device for conoscopic observation with internal Bertrand lens, Analyzer, Compensator, and Wave Plates. Easily determine the degree of polarization for crystal identification.

### OPTICAL SYSTEM

- Infinity corrected optical system
- Plan POL and LMPlan POL objectives available
- Wide range of magnifications: 4x, 5x, 10x, 20x, 40x, 60x & 100x
- Central stop dispersion staining objectives available for asbestos analysis
- Sharp images with bright natural color
- Parcentric and parfocal objectives

# STAND

- Large, sturdy base designed for the lab environment
- Rack and pinion focusing mechanism for smooth focus control
- Rotating Stage with Stage Lock
- Coarse and fine focus adjustment
- Centerable objective nosepiece
- Full Koehler illumination with field and iris diaphragm

-  Centerable Objective Turret
-  50W Halogen
-  360° Rotating Stage
-  Locking Stage



Bayonet locking mechanism on eyepiece ensures that the reticle remains orthogonal with the polarizer and analyzer.

Intermediate device for conoscopic observation with internal Bertrand lens, Analyzer, Compensator, and Wave Plates. Easily determine the degree of polarization for crystal identification.



50 Watt reflected light illuminator allows for viewing transmitted or reflected light. A pre-centered bulb ensure easy replacement of the bulb.

CAT. NO.	HEAD	OBJECTIVES	OPTICS	FOV	F-CONTROLS	KOEHLER	CONDENSER	ILLUM	STAGE	OBJ TURRET
LMC4PL5	TRINOC	4X, 10X, 20X, 60X	INFINITY, STRAIN FREE PL	22MM	COARSE & FINE	FULL	1.2 N.A. ABBE, WITH IRIS AND FLIP OUT LENS WITH 0.9 N.A.	TRANSMITTED 50W HAL	ROUND, ROTATING	4 POS CENTERABLE
LMC4PL6	TRINOC	5X, 10X, 20X, 50X	INFINITY, STRAIN FREE LMPL	22MM	COARSE & FINE	FULL	1.2 N.A. ABBE, WITH IRIS AND FLIP OUT LENS WITH 0.9 N.A.	TRANSMITTED AND REFLECTED 50W HAL	ROUND, ROTATING	4 POS, CENTERABLE
LMC4-AB2	TRINOC	4X, 10X (CS), 20X, 40X (CS)	INFINITY STRAIN FREE, CENTRAL STOP (10X & 40X)	22MM	COARSE & FINE	FULL	1.2 N.A. ABBE, WITH IRIS AND FLIP OUT LENS WITH 0.9 N.A.	TRANSMITTED 50W HAL	ROUND, ROTATING	4 POS CENTERABLE

# LMC-4000 SERIES

## METALLURGICAL

COMPOUND MICROSCOPE



-  Corrected for eyeglasses
-  Carrying Handle
-  LED Illumination
-  Stage Locking
-  LMPLAN Objectives
-  Adjustable Stage

### KEY FEATURES

- Y-Shaped body for maximum stability
- Carrying handle
- Ultra-Bright LED Illumination, reflected and transmitted light for Material Science applications
- Reflected and transmitted light for Material Science applications
- Can be purchased separately or in a pre-configured system

### OPTICAL SYSTEM

- Infinity corrected optical system
- LMPlan objectives
- Wide range of magnifications: 5x, 10x, 20x, 50x & 100x
- Sharp images with bright natural color
- Parcentric and parfocal objectives

SERIES	MAGNIFICATION	N.A.	W.D.	F.N.	COVER GLASS THICKNESS	IMMERSION
	5 X	0.15	10.80	22	-	/
	10X	0.30	10.00	22	-	/
LMPLAN	20X	0.45	4.00	22	-	/
	50X	0.55	7.90	22	-	/
	100X	0.80	2.10	22	-	/



## STAND

- Large, sturdy base designed for the lab environment
- Rack and pinion focusing mechanism for smooth focus control
- Adjustable stage height. 28mm sample height in transmitted and 78mm high samples in reflected light allows for maximum flexibility on the times of materials that can be viewed on this system
- Coarse and fine focus adjustment
- Full Koehler illumination with field and iris diaphragm

 Centerable Objective Turret

 50W Halogen

 360° Rotating Stage

 Locking Stage



5 Watt reflected light illuminator with field and iris diaphragm, polarization and color filter options.

Both transmitted and reflected light options with independent light intensity control.



CAT. NO.	HEAD	OBJECTIVES	OPTICS	FOV	F-CONTROLS	KOEHLER	CONDENSER	ILLUM	STAGE	OBJTURRET
LMC4MT5	TRINOC	5X, 10X, 20X, 50X	INFINITY, PLAN LWD METL	22MM	COARSE & FINE	FULL	1.2 N.A. ABBE, WITH IRIS AND FLIP OUT LENS WITH 0.9 N.A.	TRANSMITTED AND REFLECTED 5W LED	RACKLESS X/Y MECH STAGE	5 POS
LMC4MT7	TRINOC	5X, 10X, 20X, 50X, 100x	INFINITY, PLAN LWD METL	22MM	COARSE & FINE	FULL	1.2 N.A. ABBE, WITH IRIS AND FLIP OUT LENS WITH 0.9 N.A.	TRANSMITTED AND REFLECTED 5W LED	RACKLESS X/Y MECH STAGE	5 POS



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