



# Leica BME

Compound Microscope System

Great discoveries begin with vision.

*Leica*  
MICROSYSTEMS

# Systems. Solutions. Leica

## The Vision for the Next Generation

Superior performance. Durable construction. Exclusive features. The Leica BM E has been designed with exacting attention to each and every microscope component, to create a streamlined, high performance instrument unique in its class. The BM E is a result of Leica Microsystem's vision to design a microscope that truly meets the needs of its users and offers a flexible system of microscopy.

## The vision to see images more clearly.

The BM E utilizes the new **E** series optics designed by Leica optical engineers for high contrast, sharpness and resolving power. The quality of the optical glass and design combine into a system beyond the average microscope:

- Superior quality Leica **E**<sub>1</sub> series all-glass, finite-corrected optics for brilliant, high-contrast imaging. Upgradeable to Leica **E**<sub>2</sub> series optics for even better performance!
- Anti-Fungus/mold warranty protects your microscope and investment
- Spring-loaded, high magnification objectives prevent broken sample slides
- 18mm FOV (standard) 10x eyepiece optimizes viewing field for easy, comfortable operation
- Eyepieces accept a large selection of 21 mm reticles
- Eyeguards can be used with or without glasses and block out ambient light

## The vision to illuminate.

The BM E's illumination systems are designed to provide maximum image quality for a variety of applications. Features include:

- Designed to meet or exceed international safety standards
- Available with either Fluorescent or Tungsten-Halogen illumination
- Long-life illumination: Fluorescent provides 10,000 hours of cool, bright light and Halogen provides 2,000 hours of stable and balanced light
- Angled lamp door for Halogen illumination prevents accidental breakage
- Easy lamp change helps minimize downtime

■ **EXCLUSIVELY LEICA**

## Great discoveries begin with vision.



**André-Marie Ampère**  
1775-1836

A mathematician, physicist and chemist, Ampère defined the relationship between electricity and magnetism through mathematical demonstration (Ampère's Law).

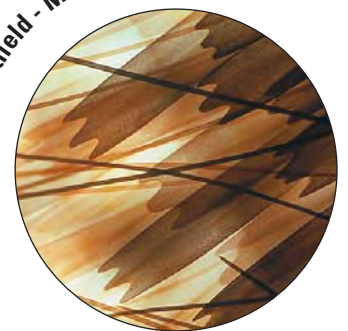


Superior quality Leica **E**<sub>1</sub> series optics, and upgradeable to **E**<sub>2</sub> series optics



Available with either Fluorescent or Tungsten-Halogen illumination

Brightfield - Moth Scales



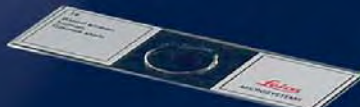


LEICA BME

LEICA  
180/0.17  
E<sub>1</sub> ACHRO  
10x/0.25

113840  
160/0.40  
E<sub>1</sub> ACHRO  
40x/0.65

Leica



# Leica Confidence

## The Vision to Provide Comfort and Convenience

When you're looking for a microscope that gives you the ultimate in comfort and quality at a reasonable price, take a close look at the Leica BM E Compound Microscope:

- The compact size keeps key controls within easy reach
- Low position of mechanical stage controls minimizes wrist movement
- The stylish, approachable design makes it inviting to use
- Coaxial coarse and fine focus controls for precision and ease of use
- Precision machined nosepiece for excellent parfocality and parcentration
- Compact size for ease of use, easy manipulation of specimens
- Low heat output for comfortable operation
- Blue filter is built in to prevent accidental loss on Tungsten-Halogen models
- 45° viewing angle and 360° rotatable viewing bodies make it easy to share, but prevent removal

## The vision to provide all the extras.

A wide range of accessories to meet your specific needs:

- ▣ Upgradeable to higher level **E<sub>2</sub>** series Leica optics
- ▣ Choice of fixed or mechanical stages with Abbe or disc diaphragm condensers
- 35mm camera solutions for photomicrography
- Fixed or separate video accessories provide flexibility
- Hardwood or soft padded cases available for storage and transporting

▣ *EXCLUSIVELY LEICA*



Leica video accessories increase the versatility of the BM E



Available with economical photographic accessories

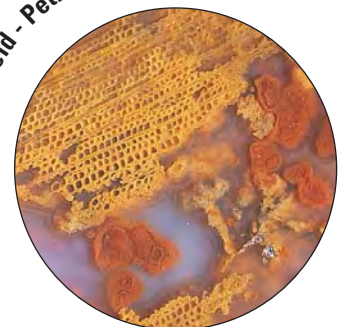
Great discoveries begin with vision.



**James Clerk Maxwell**  
1831-1879

Maxwell's experiments demonstrated that light and electricity are closely related. He showed that there were all kinds of electromagnetic waves, operating at different frequencies, beyond perception of the human eye.

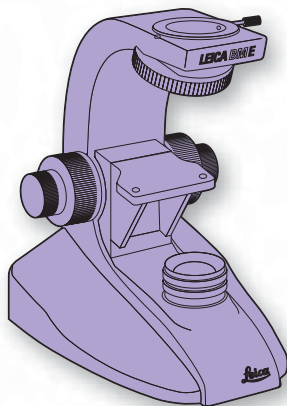
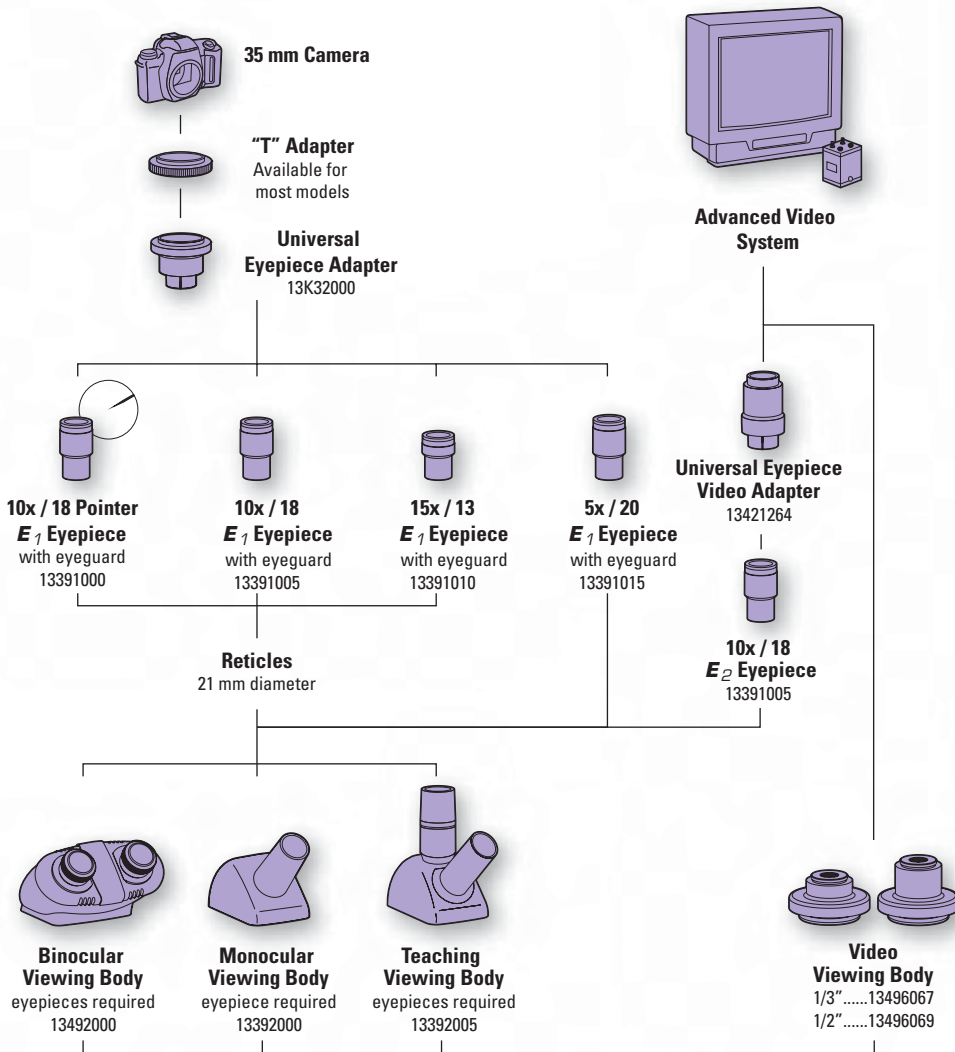
**Brightfield - Petrified Wood**



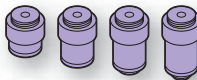
# Leica BM E System Diagram

## Basic Photography

## Advanced Video



### E Series Objectives



#### E<sub>1</sub> Achromat

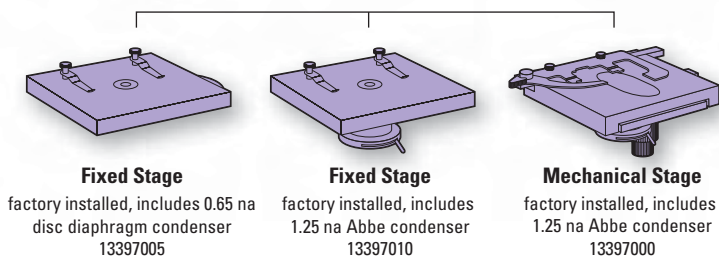
4x / 0,10.....13394000  
14x / 0,22.....13394005  
40x / 0,65.....13394010  
100x / 1,25 (oil)...13394015

#### E<sub>2</sub> Planachromat

4x / 0,10.....13494020  
10x / 0,25.....13494025  
40x / 0,65.....13494030  
100x / 1,25 (oil)...13494035

#### E<sub>2</sub> Achromat

4x / 0,10.....13494000  
10x / 0,25.....13494005  
40x / 0,65.....13494010  
100x / 1,25 (oil)...13494015



## Preconfigured Systems

Components	Systems			
230 V				
120 V				
Mirror				
Monocular				
Binocular				
Fluorescent				
Tungsten Halogen				
E <sub>1</sub> 4x, 10x, 40x				
E <sub>1</sub> 100x (oil)				
Abbe Condenser				
Disc Diaphragm				
Standard Stage				
Mechanical Stage				
	13395M01	13395F12	13395F11	13395H12
		13395H11	13395F22	13395F21
			13395H21	13395H22

## Accessories

**Attachable Mirror**  
13396050

**Replacement Lamps**  
Halogen .....13396030  
Fluorescent.....13396025

**Immersion Oil**  
13614800

**Dustcover**  
13596010

**Carrying / Storage Cases**  
Hardwood, Locking....13596016  
Soft .....13596000

## Stands \*

Components	Stands		
230 V			
120 V			
Mirror **			
Tungsten Halogen			
Fluorescent			
	13393040	13393000	13393010
		13393005	13393015

\* Specify stage and condenser type to be factory installed

\*\* Includes 13397005 standard stage with disc diaphragm condenser

## Power Cords

**North America**  
13411390

**Europe**  
13513900

**U.K. / Ireland**  
13523900

**Denmark**  
13533900

**Italy**  
13543900

**Japan**  
13603900

**Australia**  
13563900

**China**  
13593900

**Israel**  
13573900

**South Africa**  
13583900

**Switzerland**  
13553900

**Argentina**  
13613900

**India**  
13620000

# Leica BME Specifications

## Viewing Bodies

- All-glass, high quality, coated optics
- 45° viewing angle, 360° rotation
- Standard Allen screw (1.5mm) and thumbscrew combination for easy rotation of body
- Anti-fungus / mold warranty

## Monocular

- Single viewing eyetube

## Monocular Teaching

- Vertical and 45° viewing angles
- 50/50 coating light split

## Binocular

- Dual focusing eyetubes
- 54mm to 74mm IPD range, sliding

## Video

- 1/2" or 1/3"

## E<sub>1</sub> Eyepieces

- All-glass, high quality, coated optics
- Upgradeable to E<sub>2</sub> optics
- Match E<sub>2</sub> objectives with E<sub>2</sub> eyepieces and E<sub>1</sub> objectives with E<sub>1</sub> eyepieces
- Anti-fungus / mold warranty
- 5x, 20mm FOV
- 10x, 18mm FOV
- 15x, 13mm FOV

## Rubber Eyeguards

- Included with all eyepieces
- 34.2mm (1.35") diameter, 10mm (0.4") height
- Fold over eyepiece

## Reticules

- Accepts 21 mm diameter discs
- Use in 10x eyepiece without pointer and 15x

## Objectives

- All-glass, high quality, coated optics
- Upgradeable to E<sub>2</sub> optics
- Match E<sub>2</sub> objectives with E<sub>2</sub> eyepieces and E<sub>1</sub> objectives with E<sub>1</sub> eyepieces
- Finite corrected, 160mm tube length
- Anti-fungus / mold warranty
- Thread size AMO 0.800 x 36
- DIN color coded and marked

	Magnification	Numeric Aperture	Working Distance	Cover Glass
E <sub>1</sub> Achromat	4x	0.10	26.2mm	-
	10x	0.25	7.8mm	0.17
	40x	0.65	0.31mm	0.17
	100x oil	1.25	0.10mm	0.17
E <sub>2</sub> Achromat	4x	0.10	24.43mm	-
	10x	0.25	4.46mm	0.17
	40x	0.65	0.45mm	0.17
	100x oil	1.25	0.14mm	0.17
E <sub>2</sub> Planachromat**	4x	0.10	26.2mm	-
	10x	0.25	7.8mm	0.17
	40x	0.65	0.31mm	0.17
	100x oil	1.25	0.10mm	0.17

## Dimensions and Weight (with fluorescent, monocular model)

- Cast aluminum

## Dimensions

- 38.4cm (h) x 17.9cm (w) x 23.0cm (d)
- 15.12" (h) x 7.05" (w) x 9.06" (d)

## Shipping Dimensions

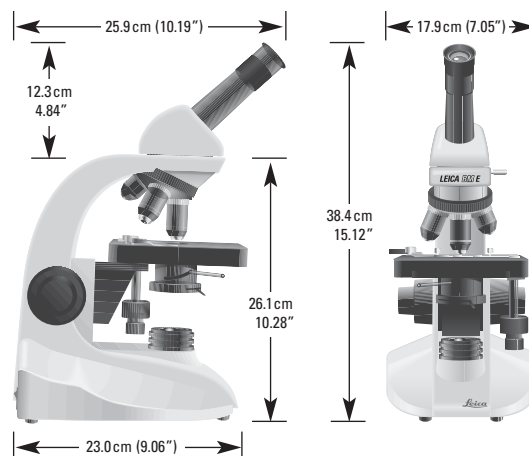
- 33.8cm (h) x 52.1cm (w) x 45.7cm (d)
- 13.30" (h) x 20.50" (w) x 18.00" (d)

## Weight

- 3.74kg, 8.24lbs.

## Shipping Weight

- 8.8kg, 13.75lbs.



## Additional

### Construction

- Cast aluminum

### Nose Piece

- Quadruple rear facing with positive stops
- Rubber grip on turret

### Illumination

- Critical or mirror
- Tungsten-halogen lamp: 2,000 hours life, 12W
- Fluorescent lamp: 10,000 hours life, 7W

### Electrical

- Designed to meet international safety standards

#### Tungsten-Halogen

- 120VAC ±10% 50/60 Hz
- 220-240VAC ±10% 50/60 Hz

#### Fluorescent

- 120VAC ±10% 60 Hz
- 220-240VAC ±10% 50/60 Hz

### Stages

#### Fixed

- Size: 13.0 cm (X) x 12.4 cm (Y) 5.12" (X) x 4.88" (Y)

#### Mechanical

- Right handed
- Size: 13.5 cm (X) x 13.5 cm (Y) 5.12" (X) x 5.12" (Y)
- Control shaft length 8.2cm, 3.23"
- Travel: 7.8cm (X) x 3.6cm (Y) 3.07" (X) x 1.42" (Y)
- Front loading specimen holder for one standard slide
- Cam and follower with ball bearings

### Sub Stage Assemblies

### Condensers

- Disc diaphragm 0.65 na
- Standard condenser 0.90 / 1.25 oil
- Minimum aperture: 1.3 ± 1mm
- Maximum aperture: 29mm

### Focusing Mechanism

- Coaxial coarse and fine focus knobs with markings on fine focus knobs for each side
- 100 divisions of 4 microns each
- One full fine focus turn equals 400 microns
- One full coarse focus turn equals 4mm

### Contrast Technique

- Brightfield

### Miscellaneous

- Dust cover, multilingual instruction manual and immersion oil included with each complete model