

Infinity Corrected Optical System

MT4000

SERIES

MEIJI TECHNO BIOLOGICAL MICROSCOPES



MT4200L / MT4300H

MT4000 SERIES

BRIGHTFIELD / PHASE CONTRAST

MT4000 SERIES

MEIJI TECHNO BIOLOGICAL MICROSCOPES

The Meiji Techno MT4000 Series Biological Microscopes have been designed as versatile, modular, ergonomic microscope systems which are ideally suited for use in research, or advanced laboratory applications. Ergonomic placement of controls allows for stress free operation, increased efficiency and maximum productivity. The MT4000 Series microscopes feature a new computer engineered rigid frame that incorporates low positioned coaxial coarse/fine focus controls and ergonomic stage design for maximum efficiency and comfort while also providing an extremely stable operating platform.

The MT4000 series offers an outstanding range of features and optical performance with an emphasis on all newly engineered high performance optics based on Meiji Techno's ICOS™ Optical System (Infinity Corrected Optical System). The new optics, provide exceptionally bright, crisp images, with good color rendition and superior flat fields of view.



MODULAR DESIGN

facilitates
ATTACHMENT OF A VARIETY OF ACCESSORIES



Comfortable Siedentopf-type
Binocular and Trinocular
Viewing Heads

Smooth Operating Ergonomic
Quintuple Nosepiece

Infinity Corrected Optical System
(ICOS™) with all newly designed
U Plan objectives

Ceramic Coated Stage with
Ergonomically Placed Low
Position Drop Down Control

Abbe and Zernike Phase Contrast
Condensers available

Integrated Super Bright LED 30-watt
Halogen Koehler Transmitted Illumination
System on selected Brightfield and Phase
Contrast Models

Compact Space Saving Footprint

Optional Ergonomic tilting binocular
and trinocular head - Adjustable
vertically from 10° to 50°

**INTEGRATED
AUTOMATIC VOLTAGE
SENSING POWER SUPPLY
WITH LOCALIZED
POWER CORDSET**
(TRANSMITTED LIGHT MODELS ONLY)

Low positioned controls allow
the operator to work with their
forearms relaxed on the working
surface so ergonomically placed
controls are within easy reach.

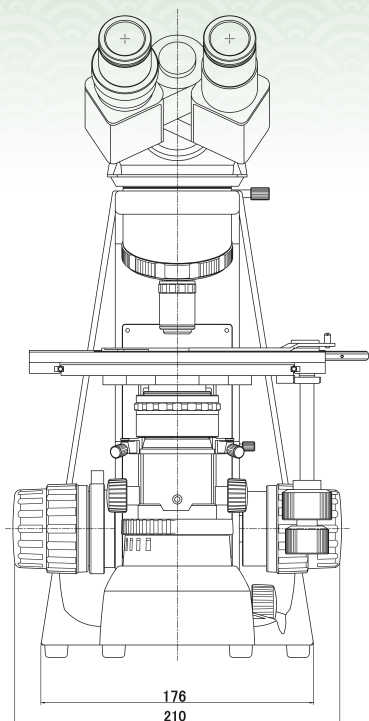
**WIDE RANGE
OF FILTERS
AND ACCESSORIES**

MT4300L / MT4300H

Footprint : 263 mm(D) x 176mm(W)

Weight & Overall Dimension :

Binocular head type 390 mm(D) x 410 mm(H) x 210
mm(W), 8.0kg **Trinocular head** type 390 mm(D) x
465 mm(H) x 210 mm(W), 8.7kg



MT4210L / MT4310H

BRIGHTFIELD BINOCULAR AND TRINOCULAR MODEL SYSTEMS

MODEL	BODY	ILLUMINATOR	EYEPIECES	OBJECTIVES	STAGE	CONDENSER
MT4200L	Binocular	LED ILLUMINATION KOEHLER AUTO VOLTAGE SENSING 110V-240V	KHW 10X F.N. 20 (O.D. 23.2mm) PAIRED	INFINITY OPTICAL SYSTEM F = 200mm (Bright Field) U PLAN 4X U PLAN 10X U PLAN 40X U PLAN 100X OIL	FIXED CERAMIC COATED FLAT-TOP RIGHT HANDED CONTROLS	ABBE N.A. 1.25 WITH IRIS IN DOVETAIL MOUNT
MT4200EL	Ergonomic Binocular					ABBE N.A. 1.25 WITH BLUE FILTER IN DOVETAIL MOUNT
MT4300L	Trinocular					
MT4300EL	Ergonomic Trinocular					
MT4200H	Binocular	KOEHLER V6, 30W HALOGEN AUTO VOLTAGE SENSING 110V-240V	KHW 10X F.N. 20 (O.D. 23.2mm) PAIRED	INFINITY OPTICAL SYSTEM F = 200mm (Bright Field) U PLAN 4X U PLAN 10X U PLAN 40X U PLAN 100X OIL	FIXED CERAMIC COATED FLAT-TOP RIGHT HANDED CONTROLS	ABBE N.A. 1.25 WITH BLUE FILTER IN DOVETAIL MOUNT
MT4200EH	Ergonomic Binocular					
MT4300H	Trinocular					
MT4300EH	Ergonomic Trinocular					

PHASE CONTRAST / BRIGHTFIELD BINOCULAR AND TRINOCULAR MODEL SYSTEMS

MODEL	BODY	ILLUMINATOR	EYEPIECES	OBJECTIVES	STAGE	CONDENSER
MT4210L	Binocular	LED ILLUMINATION KOEHLER AUTO VOLTAGE SENSING 110V-240V	KHW 10X F.N. 20 (O.D. 23.2mm) PAIRED	INFINITY OPTICAL SYSTEM F = 200mm (Phase Contrast /Bright Field) U PLAN 4X, U PLAN PH10X, U PLAN PH40X	FIXED CERAMIC COATED FLAT-TOP RIGHT HANDED CONTROLS	ZERNIKE TYPE PHASE N.A. 1.25 WITH GREEN FILTER IN DOVETAIL MOUNT
MT4210EL	Ergonomic Binocular					
MT4310L	Trinocular					
MT4310EL	Ergonomic Trinocular					
MT4210H	Binocular	KOEHLER V6, 30W HALOGEN AUTO VOLTAGE SENSING 110V-240V	KHW 10X F.N. 20 (O.D. 23.2mm) PAIRED	INFINITY OPTICAL SYSTEM F = 200mm (Phase Contrast /Bright Field) U PLAN 4X, U PLAN PH10X, U PLAN PH40X	FIXED CERAMIC COATED FLAT-TOP RIGHT HANDED CONTROLS	ZERNIKE TYPE PHASE N.A. 1.25 WITH GREEN FILTER IN DOVETAIL MOUNT
MT4210EH	Ergonomic Binocular					
MT4310H	Trinocular					
MT4310EH	Ergonomic Trinocular					

HDMI-USB 2.0 CAMERAS WITH 11.8" MONITOR

- HD1000-LITE-M** Affordable Color HD 5MP CMOS 15FPS/ HDMI/ USB 2.0 Camera/Annotation & Measurement Software with 11.8IN HDMI
- HD1500T-M** Color HD 6MP CMOS 60FPS/ HDMI/ USB 2.0 Camera/Annotation & Metric Measurement Software with 11.8IN HDMI monitor.
- HD1500MET-M** Color HD 6MP CMOS 60FPS/ HDMI/ USB 2.0 Camera/Annotation & Metric Measurement Software with 11.8IN HDMI monitor.
- HD1500MET-AF-M** Autofocus HD 6MP CMOS 60FPS/ HDMI/ USB 2.0 Camera/Annotation & Metric Measurement Software with 11.8IN HDMI



35mm PHOTOMICROSCOPY

Following three accessories are required for mounting a 35mm SLR camera body

1. The appropriate T-2 adapter ring for your SLR camera body

- | | |
|----------------------|---|
| T2-1 Canon | T2-6 Olympus |
| T2-2 Minolta | T2-7 Contax, Yashika |
| T2-3 Pentax K | T2-8 Konica |
| T2-4 Pentax S | T2-9 Canon Eos |
| T2-5 Nikon | T2-10 Minolta Alpha / Maxim 2000 |

These adapter rings attach directly to your camera body's lens mount.

2. A photo eyepiece, available in the following magnifications:

- MA512** 2.5X magnification
MA500 3.3X magnification (with reticle mount)
MA508 5X magnification

The photo eyepiece performs the same function as a standard 35mm camera lens (i.e. focusing the image at the plane of the film).

3. One of two MA150 series camera attachments:

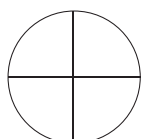
- MA150/50** Straight-tube camera attachment
MA150/60 Camera attachment with built-in focusing eyepiece
 These attachments are used to mount the camera with T2 adapter ring to the photo tube.



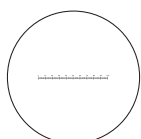
COMPONENTS & ACCESSORIES FOR MT4000 SERIES

EYEPIECE MICROMETERS (FOR USE WITH MA407 EYEPIECE)

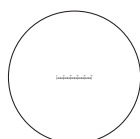
- MA284** Cross-line reticle, 21mm diameter
MA255 Eyepiece micrometer, 10mm divided into 100 units, 21mm diameter
MA256 Eyepiece micrometer 5mm divided into 100 units, 21mm diameter
MA283/05 10mm square divided into 100 parts, 1.0mm square, 21mm diameter
MA540 Cross-line with 0.1mm graduations, 21mm diameter
MA254/05 Walton and Beckett reticle 21mm diameter



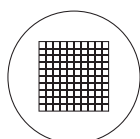
MA284
Cross-line



MA255
10mm in 100 parts



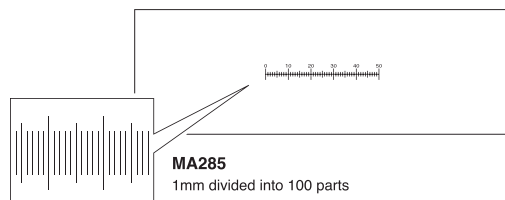
MA256
5mm in 100 parts



MA283/05
10mm square in 100 square

STAGE MICROMETERS

- MA285** Glass micrometer, 0.01mm ruling
MA286 Glass micrometer, 0.04" divided into 40 units, 0.001"



MA285
1mm divided into 100 parts

COMPONENTS & ACCESSORIES FOR MT4000 SERIES

VIEWING HEAD (without eyepieces)

- MA815/05** Binocular head (Siedentopf type, I.P. adjustment 53mm to 75mm graduated diopter on left eyetube (23.2mm I.D. eyetubes). Inclined at 30°. (Included in Model MT4200L, MT4200H & MT4210H)
- MA816/05** Trinocular head (Siedentopf type, I.P. adjustment 53mm to 75mm graduated diopter on left eyetube (23.2mm I.D. eyetubes). Inclined at 30°. (Included in Model MT4300L, MT4300H & MT4310H)
- MA957/05** Ergonomic head, inclination adjustable vertically from 10. to 50. (23.2mm I.D. eyetubes).
- MA958** Photo/Video attachment with sliding 80/20 beam-splitter for attaching video or digital camera to MT Series when MA957/05 Ergonomic head is used.

EYEPIECES

- MA407** KHW10X Compensating eyepiece, Field No. 20, Tube O.D. 23.2mm (21mm reticle mount) (Paired MA407 Eyepieces included in all MT4000 Series models)
- MA407/05** KHW10X Compensating Focusing eyepiece, Field No. 20, Tube O.D. 23.2mm (each) (optional)
- MA408** HWF15X, Widefield eyepiece, Field No. 12.2, Tube O.D. 23.2mm (No reticle mount)
- MA409** HWF20X, Widefield eyepiece, Field No. 9, Tube O.D. 23.2mm (No reticle mount)
- MA406** HWF10X Widefield High-eyepoint eyepiece, Field No. 18, Tube O.D. 23.2mm (19mm reticle mount)
- MA413** HWF-10X Focusing eyepiece with reticle mount, Field No. 18, Tube O.D. 23.2mm (19mm reticle mount)

U PLAN OBJECTIVES (Infinity Corrected F=200mm) Included in models MT4200L, MT4300L, MT4200H, MT4300H)

- MA830** U Plan Objective 2.5X, N.A. 0.07 W.D. 5.7mm, F.N. 24 (Optional)
- MA831** U Plan Objective 4X, N.A. 0.10 W.D. 25.8mm, F.N. 24 (Included in all model)
- MA832** U Plan Objective 10X, N.A. 0.25 W.D. 10.7mm, F.N. 24 (Included in BF model)
- MA833** U Plan Objective 20X, N.A. 0.40 W.D. 7.29mm, F.N. 24 (Optional)
- MA834** U Plan Objective 40X, N.A. 0.65 W.D. 0.5mm, F.N. 24 (Included in BF model)
- MA969** U Plan Objective 60X, N.A. 0.80 W.D. 0.23mm, F.N. 24 (Optional)
- MA837** U Plan Objective 100X, N.A. 1.25 oil, W.D. 0.23mm, F.N. 24 (Included in BF models)

U PLAN PHASE CONTRAST OBJECTIVES (Infinity Corrected F=200mm) (Included in Model MT4210L, MT4310L, MT4210H, MT4310H)

- MA839** U Plan Phase 10X Objective, N.A. 0.25, W.D. 10.7mm (Included in PH Model)
- MA840** U Plan Phase 20X Objective, N.A. 0.40, W.D. 7.29mm (Optional)
- MA841** U Plan Phase 20X Objective, N.A. 0.40, W.D. 7.29mm (Included in PH Model)
- MA842** U Plan Phase 20X Objective, N.A. 0.40, W.D. 7.29mm (Optional)

CONDENSER

- MA910** Abbe condenser, N.A.1.25 with iris diaphragm in dovetail mount (Included in Models MT4200L, MT4300L, MT4200H & MT4300H)
- MA911** Achromatic condenser, N.A.1.25 with iris diaphragm in dovetail mount
- MA913** Zernike Phase condenser with centerable phase annuli for 10X, 20X, 40X, 100X with brightfield position, darkfield stop for 40X objective, (black-out position for epi-fluorescence on MT6000 Series only) with iris in dovetail mount (Included in Models MT4210H & MT4310H)

POLARIZER

- MA915** Polarizer set for MT4000 Series

FILTERS

- MA858/05** ND25 Neutral density filter, 44.0mm diameter, unmounted (included in PH Model)
- MA856/05** LB100 Blue Clear filter 44.0mm diameter, unmounted (Included in Models MT4200H, MT4300H, MT4210H & MT4310H)
- MA857/05** Green filter, clear, 44.0mm diameter, unmounted (Included in Models MT4210H & MT4310H)
- MA861/05** Green interference filter, 44.0mm diameter, unmounted

STAGES

- MA917R** Ceramic coated flat-top stage, 78mm x 52mm, X-Y movement, with right hand drop-down coaxial controls. (Included in all Models)
- MA917L** Ceramic coated flat-top stage, 78mm x 52mm, X-Y movement, with left hand drop-down coaxial controls. (Optional)
- MA598** Attachable finger assembly for MA917R and MA917L

MISCELLANEOUS

- MA200** Eyeshield for MA407 KHW10X Eyepiece (ea)
- MA326** Spare bulb 6V 30W Halogen lamp
- MA327** Spare 3A Fuse for Halogen illuminator
- MA929** Spare Fuse 0.5A for LED Illuminator
- MA809/10** Removable AC Electric cord with UL plug for 115V models
- MA809/20** Removable AC Electric cord with European plug for 220V models
- MA809/30** Removable AC Electric cord with UK plug for 240V models
- MA701** Dust Cover for MT4000 Series



MA957/05 ERGONOMIC HEAD



MA839 - U PLAN PHASE CONTRAST OBJECTIVE



MA913 - ABBE CONDENSER

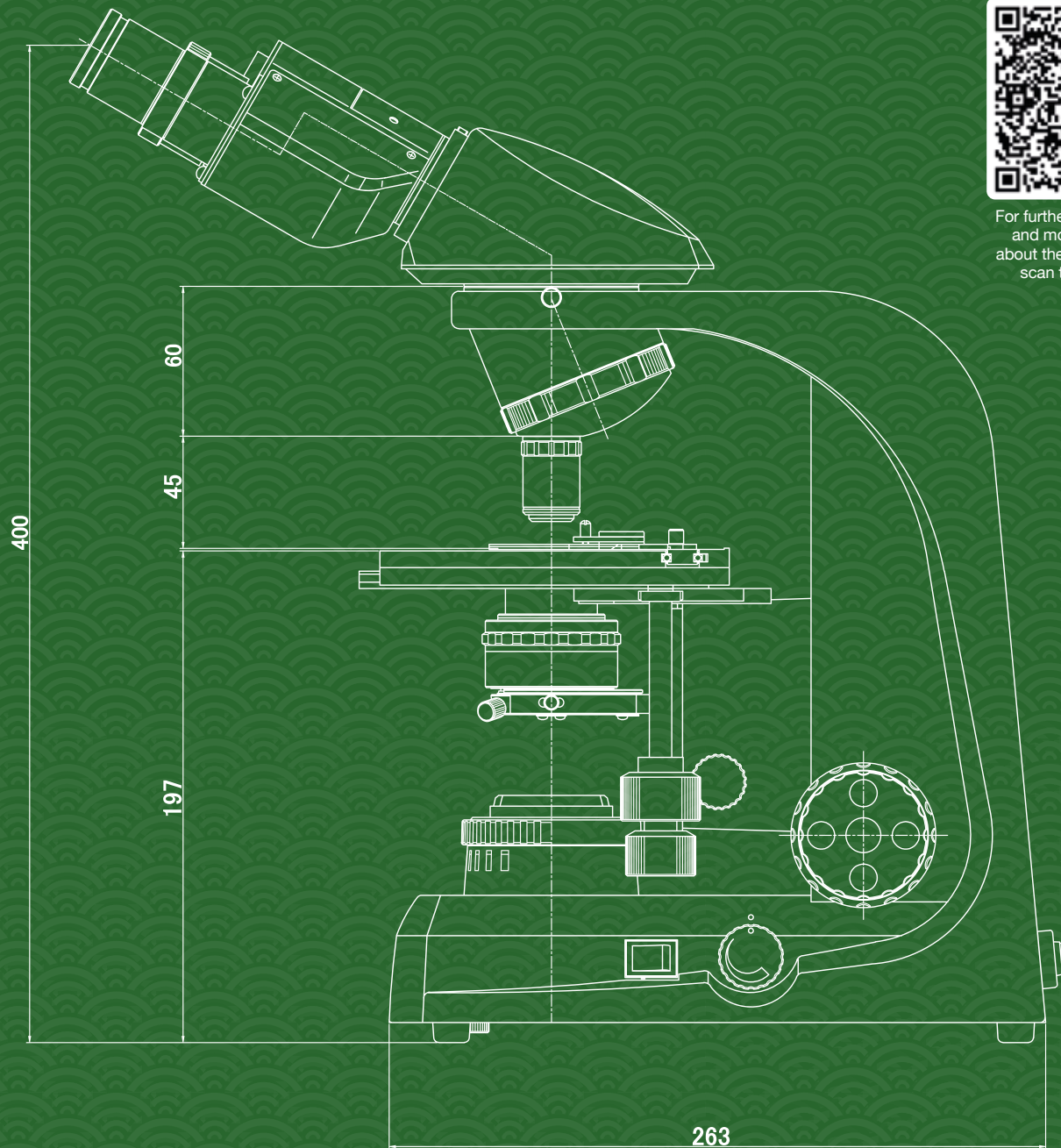


MA861/05 - GREEN INTERFERENCE FILTER



Zernike Phase Set

PHASE CONTRAST SET, comprising:
Zernike Phase condenser, S Plan Phase Objectives 10X, 20X, 40X, 100X, Centering Telescope (MA458) and Green filter (MA857/05)



For further configurations
and more information
about the MT4000 Series,
scan this QR code.

Specifications and design subject to change without notice for improvements

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