



MEASURING MICROSCOPES

MM-SERIES

The lineup provides high accuracy and ease of use and meets a wide range of needs.

Measuring Microscopes

MM-Series

The MM-series are products Nikon is most proud of, with a variety of enhanced features such as higher measurement accuracy and coordination with data processing systems.



MM-Type
MM-400N/LV

- In addition to the easy-to-use design, an motorized vertical movement mechanism is available.
- Transmissive lighting enables switching between white and green LED light.
- Stages can be selected from 3 types for MM-400N and 6 types for MM-800N (max 300x200 mm).
- Digital image measurement is possible with the E-MAX (V3 set) measurement support system.
- Data processing unit DP-E1A which combines high functionality and ease of use is available.
- The coarse/fine movement switching lever and RESET/SEND button are near the X/Y axis handle of the stage.
- Aperture diaphragm function for transmitted illuminator is available for both MM-400N and MM-800N, supporting the measurement of cylindrical parts.
- Power consumption has been reduced by 10%*1 compared to the former MM-400/MM-800 series models. The manufacturer provides environmentally friendly products and complies with the RoHS Directive and other laws and regulations*2.

*1. Calculated based on Nikon evaluation values *2. Based on Nikon standards, in consideration of domestic and foreign laws and regulations



X-axis handle (around switch)



Y-axis handle (around switch)



U-Type
MM-800N/U

Function Icons

- FA** **Focusing Aid**
The Focusing Aid (FA) ensures accurate Z-axis focusing.
- UFA** **Universal Epi-illuminator Focusing Aid**
A universal epi-illuminator with Focusing Aid (FA) mechanism.
- V** **Variable Magnification**
Two objective lenses can be attached, making magnification changeover easy.
- Z** **Z-axis Motorized Motion**
A dedicated controller provides easy and accurate up/down movements.
- 2** **Dual Side Coarse/Fine Focus Knob**
Coarse/fine focus knobs are on both sides.
- L** **Built-in Z-axis Linear Scale**
Z-axis reading is possible for non-contact height measurement.
- T** **Trinocular Optical Head**
Ideal for configuration with photomicrography equipment.
- M** **Monocular Optical Head**
For applications where cost performance is priority.
- U-EPI** **Universal Epi-illuminator**
Supports a wide range of applications.
- LED** **LED Illuminator**
White LED illuminator for brightfield use.

MM TYPE

| Z Motorized | Variable Magnification | Z-axis Linear Scale | Basic |
|--|--|--|---|
| MM-800N/LMT MM-800N/LMFA MM-400N/LMT MM-400N/LMFA | MM-800N/LV MM-800N/LVFA MM-400N/LV MM-400N/LVFA | MM-800N/LT MM-800N/SLT MM-400N/LT MM-400N/SLT MM-800N/LFA MM-400N/LFA | MM-800N/T MM-800N/ST MM-400N/T MM-400N/ST MM-400N/M MM-400N/SM |
| P6 | P6 | P7 | P7 |

UNIVERSAL TYPE

| Z Motorized | Z-axis Linear Scale | Basic |
|----------------------------|---|--|
| MM-800N/LMU MM-400N/LMU | MM-800N/LU MM-800N/SLU MM-400N/SLUFA MM-400N/SLU | MM-800N/U MM-800N/SU MM-400N/U MM-400N/SU |
| P8 | P8 | P9 |

MM TYPE

Highly accurate measurement is achieved with proven optical technology and control functions.

Improved lighting performance for wide range of needs

LED Illuminator

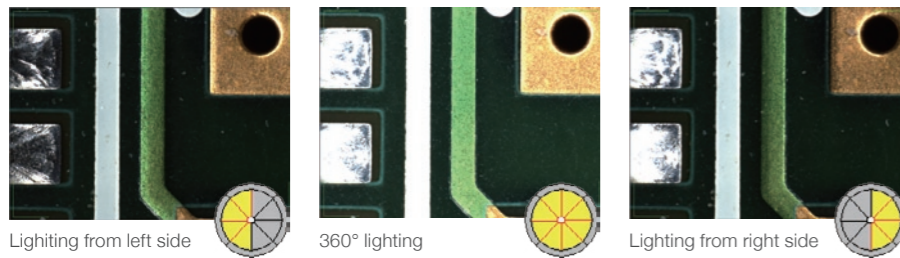
The diascopic LED illuminator has both white and green light sources, and the operator can easily switch the light without inserting or removing filters. The high-intensity white LED lighting has a constant color temperature and the light modulator responds quickly, so efficient high-precision measurement is possible. Furthermore, it has low power consumption and long life.



LED transmissive illuminator LED reflective illuminator

8-segment LED Ring Light CYN-E1 (option for MM-type)

- Highlights the edges of samples that are difficult to see under normal lighting, such as plastic molded products.
- Selectable 8-segment ON/OFF LED with a large amount of light and a 30° angle of incidence.
- Compatible with 1x, 3x, 5x, and 10x measuring microscope objective lenses



Lighting from left side 360° lighting Lighting from right side

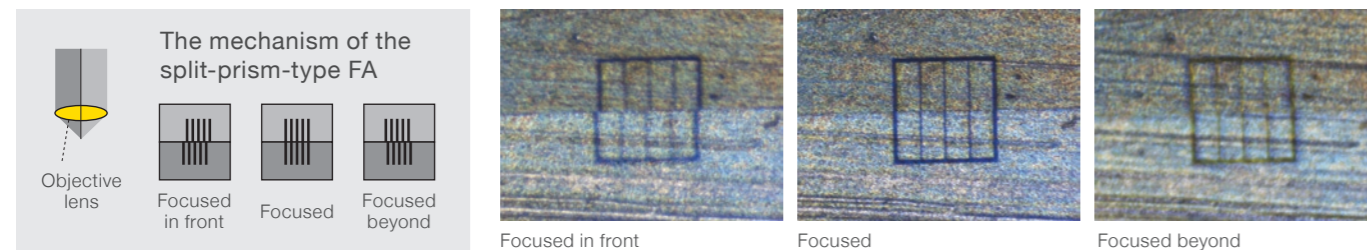


8-segment LED Ring Light CYN-E1

Improved accuracy/repeatability of height measurements

Focusing Aid (FA)

A newly developed split-prism-type FA with a clear pattern makes it possible to accurately focus in the Z-axis and reduces height measurement errors caused by the depth of field of the objective lens. There are two types of patterns, light and dark, and it is possible to switch between them according to the surface properties of the test object.



Objective lenses for MM TYPE

These compact objectives feature long working distance and excellent resolution, which helps to reduce measurement errors.



| Magnification | 1x | 3x | 5x | 10x | 20x | 50x | 100x |
|---------------------------------------|-------|------|------|-----|-----|------|------|
| WD (mm) | 79 | 75 | 64 | 48 | 20 | 15 | 4 |
| NA | 0.03 | 0.09 | 0.13 | 0.2 | 0.4 | 0.55 | 0.75 |
| Physical depth of focus (μm) | 305.5 | 33.9 | 16.2 | 6.8 | 1.7 | 0.9 | 0.4 |
| F.O.V for eyepieces (CFWN 10x F.N.20) | 20 | 6.66 | 4 | 2 | 1 | 0.4 | 0.2 |

UNIVERSAL TYPE

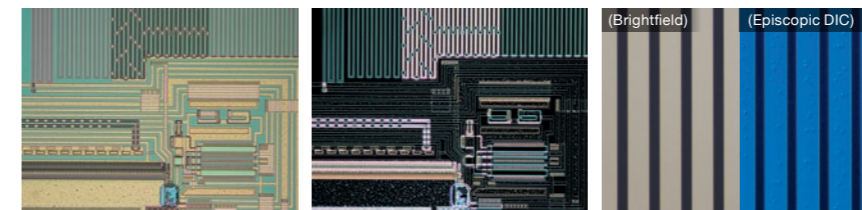
Enhanced the accuracy of height measurements and a variety of illuminators make possible both an expanded observation area and high-precision measurement

Lineup of a variety of illuminators

- **Universal Reflective Illuminator LV-UEPI2**
Optimal illumination conditions can be linked to the field of view aperture, aperture diaphragm, and shutter.
- **Universal Reflective Illuminator LV-UEPI**
Automatically opens the field of view aperture and aperture diaphragm when switching between brightfield and darkfield.
- **FA Reflective Illuminator LV-UEPI FA**
Has the FA for more precise height measurement.



FA Reflective Illuminator LV-UEPI FA



Brightfield Semiconductors (IC wafers) Darkfield Semiconductors (IC wafers) Episcopic DIC Substrate

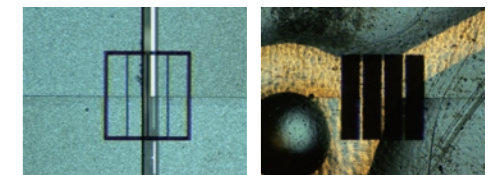
| | Brightfield | Darkfield | DIC | Polarizing |
|-----------------|-------------|-----------|-----|------------|
| Episcopic (LED) | ○ | ○ | ○ | △* |
| Diascopic (LED) | ○ | — | — | — |

* only simple polarizing observation

Enhanced accuracy/repeatability of height measurements

Focusing Aid (FA)

There is a newly developed split-prism type FA. It enables more accurate focusing and reduces measurement errors caused by the depth of field of the objective lens. (Must be used with the LV-UEPI FA illuminator.)



Dark line pattern Light line pattern

Objective lenses for UNIVERSAL TYPE

This new optical system combines excellent chromatic aberration correction and long working distances. The edge detection for the location being measured and operability have been improved, and a wider variety of samples can be handled.

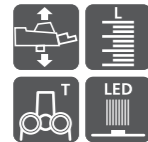
| Observation Methods | Type | Magnifications | NA | WD (mm) | Physical depth of focus(μm) | F.O.V for eyepieces (CFI 10x F.N.22) |
|---------------------------|-------------------|----------------|------|---------|-----------------------------|--------------------------------------|
| Brightfield | TU Plan Fluor EPI | 5x | 0.15 | 23.5 | 12.22 | 4.4 |
| | | 10x | 0.30 | 17.5 | 3.06 | 2.2 |
| | TU Plan EPI ELWD | 20x | 0.40 | 19.0 | 1.72 | 1.1 |
| | | 50x | 0.50 | 11.0 | 0.76 | 0.44 |
| Brightfield/ Darkfield | TU Plan Fluor BD | 100x | 0.80 | 4.5 | 0.43 | 0.22 |
| | | 5x | 0.15 | 18.0 | 12.22 | 4.4 |
| | TU Plan BD | 10x | 0.30 | 15.0 | 3.06 | 2.2 |
| | | 20x | 0.40 | 19.0 | 1.72 | 1.1 |
| | TU Plan BD ELWD | 50x | 0.60 | 11.0 | 0.76 | 0.44 |
| | | 100x | 0.80 | 4.5 | 0.43 | 0.22 |

MM TYPE

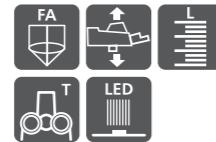
Z Motorized

Vertical movement is motorized so it is easy on the operator, and precise movements are possible. When combined with the FA trinocular observation unit height measurement error can be minimized.

MM-800N/LMT
MM-400N/LMT

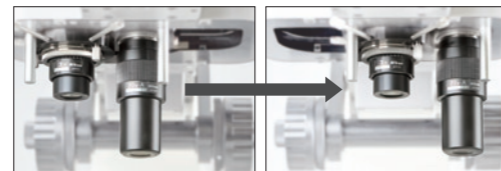


MM-800N/LMFA
MM-400N/LMFA



Variable magnification

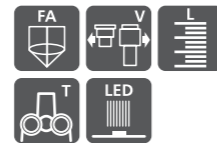
Two objective lenses, low magnification and high magnification, can be mounted and it is easy to switch between them. A single microscope can efficiently perform wide-field measurement at low magnification and high-precision height measurement at high magnification.



MM-800N/LV
MM-400N/LV



MM-800N/LVFA
MM-400N/LVFA



Main Specifications

| Model | MM-800N/LMT, MM-800N/LMFA | MM-800N/LV, MM-800N/LVFA | MM-400N/LMT, MM-400N/LMFA | MM-400N/LV, MM-400N/LVFA |
|--|--|---|---|---|
| Z-axis movement | Motorized (max. speed: 10 mm/sec) | Manual (dual side coarse/fine focus knob) | Motorized (max. speed: 10 mm/sec) | Manual (dual side coarse/fine focus knob) |
| Optical head | Trinocular optical head, Trinocular optical FA head | Variable magnification optical head, Variable magnification optical FA head | Trinocular optical head, Trinocular optical FA head | Variable magnification optical head, Variable magnification optical FA head |
| Eyeiece inclination angle | 25° | | | |
| Eyeiece | CFWN10X (Field No. 20) | | | |
| Objective lenses | Measuring microscope objectives 1X, 3X, 5X, 10X, 20X, 50X, 100X | Low magnification: 1X, 3X, 5X, 10X High magnification: 5X, 10X, 20X, 50X, 100X | Measuring microscope objectives 1X, 3X, 5X, 10X, 20X, 50X, 100X | Low magnification: 1X, 3X, 5X, 10X High magnification: 5X, 10X, 20X, 50X, 100X |
| Stage ^{*1} | MHS 12x8C, MHS 10x6B, MHS 8x6B, MHS 6x4B, MHS 4x4B, MHS 2x2B | MHS 6x4B, MHS 4x4B, MHS 2x2B | | |
| Light Source | Diascopic: White LED (standard), Green LED (standard) / Episcopic: White LED | | | |
| Maximum sample height | 200 mm | | 150 mm | |
| Dimensions (WxDxH), Weight (approx.) ^{*2} | 380(W)×703(D)×725(H)mm, Approx. 72 kg | | 300(W)×567(D)×638(H)mm, Approx. 50 kg | |

*1: When attaching a MHS 6x4B, MHS 4x4B, or MHS 2x2B stage to MM-800N, a stage adapter is required.

*2: Excludes stage and eyepiece

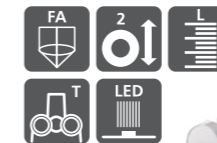
Z-axis linear encoder

Dual-axis handle type with built-in Z-axis scale. An FA trinocular optical head or non-FA trinocular optical head can be selected according to the application.

MM-800N/LT
MM-800N/SLT
MM-400N/LT
MM-400N/SLT



MM-800N/LFA
MM-400N/LFA



Basic

These are basic types for the MM-800N and 400N measuring microscopes with excellent cost performance. The optical head and stage can be selected according to the measurement application. (for XY measurement only)

MM-800N/T
MM-800N/ST
MM-400N/T
MM-400N/ST



MM-400N/M
MM-400N/SM



Main Specifications

| Model | MM-800N/L, MM-800N/LFA, MM-800N/SLT | MM-400N/L, MM-400N/LFA, MM-400N/SLT | MM-800N/T, MM-800N/ST | MM-400N/T, MM-400N/ST | MM-400N/M |
|--|--|---------------------------------------|--|---------------------------------------|-------------------------------|
| Z-axis movement | Manual (dual side coarse/fine focus knob) | | | | |
| Optical head | Trinocular optical head, Trinocular optical FA head | | | Trinocular optical head | Monocular optical head |
| Eyeiece inclination angle | 25° | | | | 30° |
| Eyeiece | CFWN10X (Field No. 20) | | | | MM Eyeiece 10X (Field No. 20) |
| Objective lenses | Measuring microscope objectives 1X, 3X, 5X, 10X, 20X, 50X, 100X | | | | |
| Stage ^{*1} | MHS 12x8C, MHS 10x6B, MHS 8x6B, MHS 6x4B, MHS 4x4B, MHS 2x2B | MHS 6x4B, MHS 4x4B, MHS 2x2B | MHS 12x8C, MHS 10x6B, MHS 8x6B, MHS 6x4B, MHS 4x4B, MHS 2x2B | MHS 6x4B, MHS 4x4B, MHS 2x2B | |
| Light Source | Diascopic: White LED (standard), Green LED (standard) / Episcopic: White LED | | | | |
| Maximum sample height | 200 mm | 150 mm | 200 mm | 150 mm | |
| Dimensions (WxDxH), Weight (approx.) ^{*2} | 380(W)×703(D)×725(H)mm, Approx. 72 kg | 300(W)×567(D)×638(H)mm, Approx. 50 kg | 380(W)×703(D)×725(H)mm, Approx. 72 kg | 300(W)×567(D)×638(H)mm, Approx. 50 kg | |

*1: When attaching a MHS 6x4B, MHS 4x4B, or MHS 2x2B stage to MM-800N, a stage adapter is required.

*2: Excludes stage and eyepiece

Function Icons

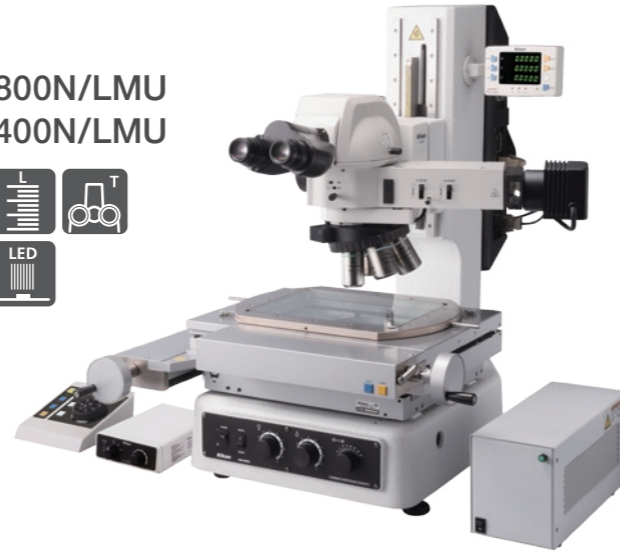
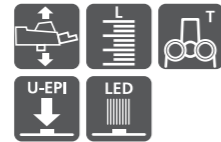
- Focusing Aid**
The Focusing Aid (FA) ensures accurate Z-axis focusing.
- Universal Epi-illuminator Focusing Aid**
A universal epi-illuminator with Focusing Aid (FA) mechanism.
- Variable Magnification**
Two objective lenses can be attached, making magnification changeover easy.
- Z-axis Motorized Motion**
A dedicated controller provides easy and accurate up/down movements.
- Dual Side Coarse/Fine Focus Knob**
Coarse/fine focus knobs are on both sides.
- Built-in Z-axis Linear Scale**
Z-axis reading is possible for non-contact height measurement.
- Trinocular Optical Head**
Ideal for configuration with photomicrography equipment.
- Monocular Optical Head**
For applications where cost performance is priority.
- Universal Epi-illuminator**
Supports a wide range of applications.
- LED Illuminator**
White LED illuminator for brightfield use.

UNIVERSAL TYPE

Z Motorized

Universal-type with motorized vertical movement with universal reflective illuminator capable of brightfield, darkfield, simple polarization, and differential interference observation.

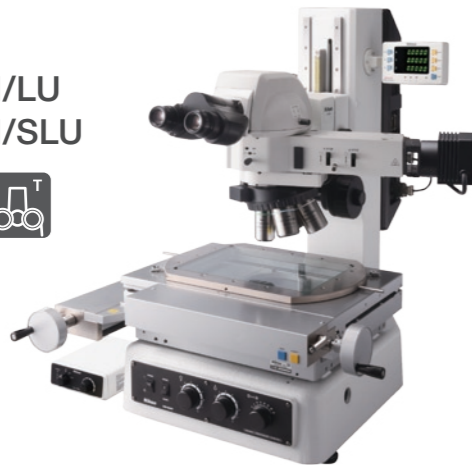
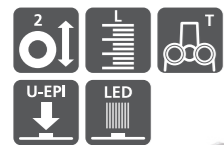
MM-800N/LMU
MM-400N/LMU



Z-axis linear encoder

Dual-axis handle type with built-in Z-axis scale. Combining with the LV-UEPI FA reflective illuminator, high-precision height measurements can be made.

MM-800N/LU
MM-800N/SLU



MM-400N/SLUFA
MM-400N/SLU



■ Main Specifications

| Model | MM-800N/LMU | MM-400N/LMU | MM-800N/LU, MM-800N/SLU | MM-400N/SLUFA, MM-400N/SLU |
|--|--|---------------------------------------|--|---------------------------------------|
| Z-axis movement | Motorized (max. speed: 10 mm/sec) | | Manual (dual side coarse/fine focus knob) | |
| Eyepiece Tube | C-TB binocular tube, LV-TI3 trinocular eyepiece tube, LV-TT2 tilting trinocular eyepiece tube (with built-in reticle) | | | |
| Eyepiece | CFI10X (Field No. 22), CFI10XCM (Field No. 22) | | | |
| Objective lenses | TU Plan FLUOR EPI series, TU Plan FLUOR BD series, CFI L Plan EPI CR series | | | |
| Stage ^{*1} | MHS 12x8C, MHS 10x6B, MHS 8x6B, MHS 6x4B, MHS 4x4B, MHS 2x2B | MHS 6x4B, MHS 4x4B, MHS 2x2B | MHS 12x8C, MHS 10x6B, MHS 8x6B, MHS 6x4B, MHS 4x4B, MHS 2x2B | MHS 6x4B, MHS 4x4B, MHS 2x2B |
| Light Source | Diascopic: White LED (standard), Green LED (standard) | | | |
| | Episcopic: Universal epi-illuminator with Focusing Aid LV-U EPI FA, Universal epi-illuminator LV-U EPI ^{*2} , Universal epi-illuminator U-EPI ^{*2} , MM-C-LL LED Lamphouse (option for LV-U EPI and LV-U EPI ^{*2}) ^{*2} | | | |
| Maximum sample height | 200 mm | 150 mm | 200 mm | 150 mm |
| Dimensions (WxDxH), Weight (approx.) ^{*3} | 380(W)×703(D)×725(H)mm, Approx. 72 kg | 300(W)×567(D)×638(H)mm, Approx. 50 kg | 380(W)×703(D)×725(H)mm, Approx. 72 kg | 300(W)×567(D)×638(H)mm, Approx. 50 kg |

*1: When attaching a MHS 6x4B, MHS 4x4B, or MHS 2x2B stage to MM-800N, a stage adapter is required.

*2: Used with TI-PS100W power supply + MM-LH60PC *3: Excludes stage and eyepiece

Basic

Basic universal-type with universal reflective illuminator capable of brightfield, darkfield, simple polarization, and differential interference observation. (for XY measurement only)

MM-800N/U
MM-800N/SU



MM-400N/U
MM-400N/SU



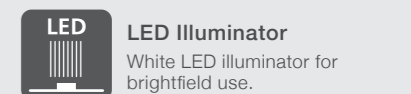
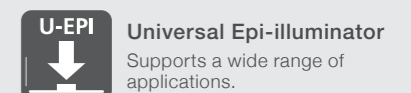
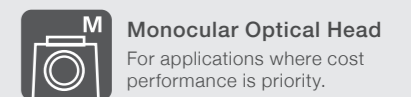
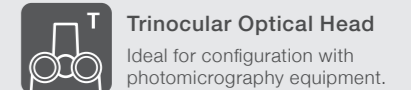
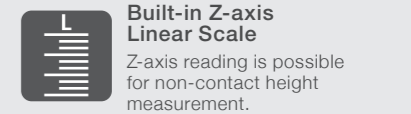
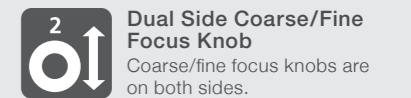
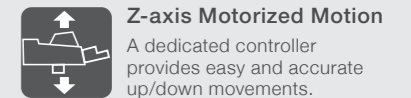
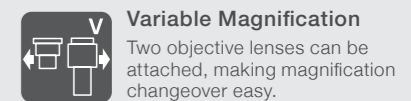
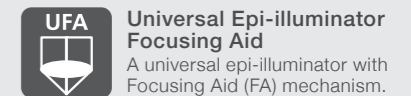
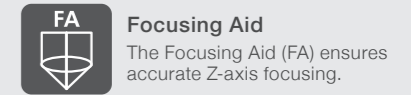
■ Main Specifications

| Model | MM-800N/U, MM-800N/SU | MM-400N/U, MM-400N/SU |
|--|--|---------------------------------------|
| Z-axis movement | Manual (dual side coarse/fine focus knob) | |
| Eyepiece Tube | C-TB binocular tube, LV-TI3 trinocular eyepiece tube, LV-TT2 tilting trinocular eyepiece tube (with built-in reticle) | |
| Eyepiece | CFI10X (Field No. 22), CFI10XCM (Field No. 22) | |
| Objective lenses | TU Plan FLUOR EPI series, TU Plan FLUOR BD series, CFI L Plan EPI CR series | |
| Stage ^{*1} | MHS 12x8C, MHS 10x6B, MHS 8x6B, MHS 6x4B, MHS 4x4B, MHS 2x2B | MHS 6x4B, MHS 4x4B, MHS 2x2B |
| Light Source | Diascopic: White LED (standard), Green LED (standard) | |
| | Episcopic: Universal epi-illuminator with Focusing Aid LV-U EPI FA, Universal epi-illuminator LV-U EPI ^{*2} , Universal epi-illuminator U-EPI ^{*2} , MM-C-LL LED Lamphouse (option for LV-U EPI and LV-U EPI ^{*2}) ^{*2} | |
| Maximum sample height | 200 mm | 150 mm |
| Dimensions (WxDxH), Weight (approx.) ^{*3} | 380(W)×703(D)×725(H)mm, Approx. 72 kg | 300(W)×567(D)×638(H)mm, Approx. 50 kg |

*1: When attaching a MHS 6x4B, MHS 4x4B, or MHS 2x2B stage to MM-800N, a stage adapter is required.

*2: Used with TI-PS100W power supply + MM-LH60PC *3: Excludes stage and eyepiece

■ Function Icons

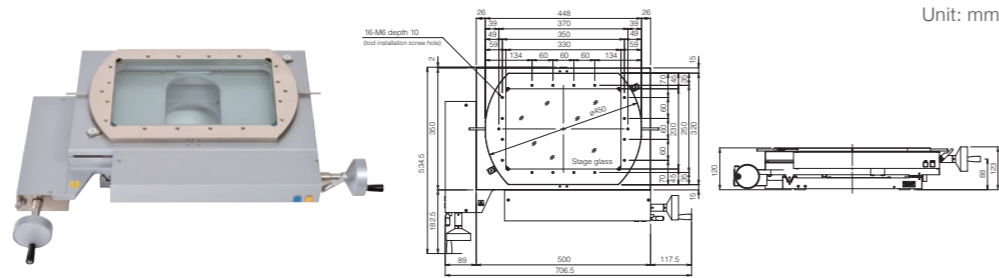


ACCESSORIES

Stages

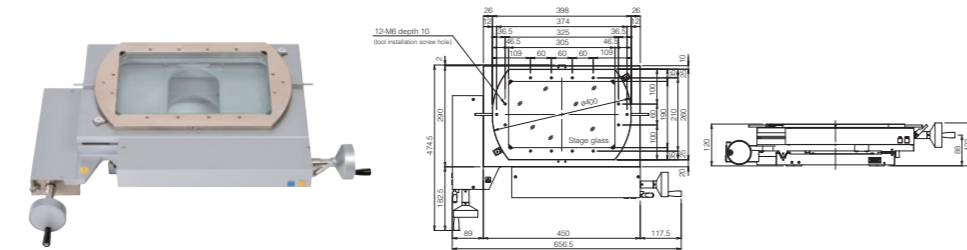
Stages for MM-800N series

PS 12x8C Stage

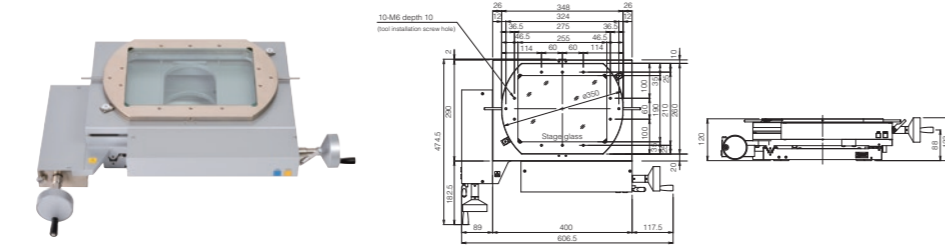


Unit: mm

PS 10x6B Stage

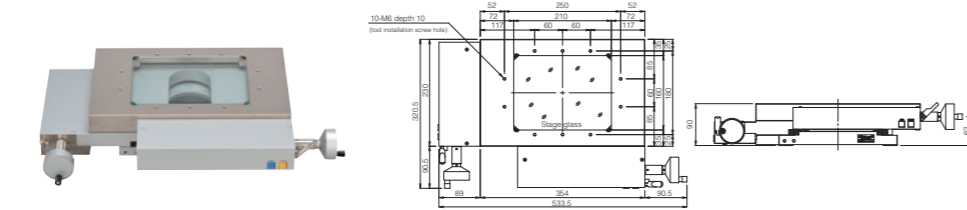


PS 8x6B Stage

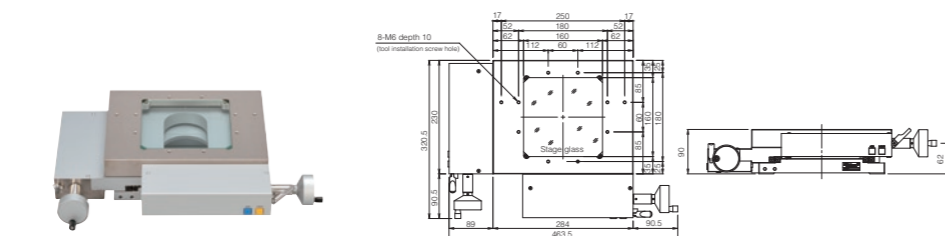


Stages for MM-400N series

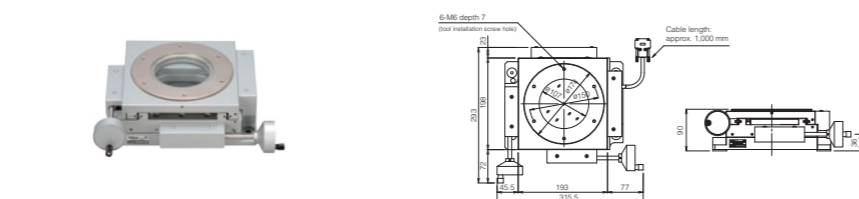
PS 6x4B Stage



PS 4x4B Stage



PS 2x2B Stage



Stage specifications

| Type | Surface area (mm) | Stage glass dimensions (mm) | Stroke (mm) | Reading method | Min. reading (μm) | Rotation range | Tool installation screw hole | Loading capacity (kg) | Weight (approx.)(kg) |
|----------|-------------------|-----------------------------|-------------|--------------------------|-------------------|-----------------------|------------------------------|-----------------------|----------------------|
| PS 12x8C | 448×320 | 330×230 | 300×200 | Linear encoder | 0.01 | ±3° (Swivel plate) | 16-M6 depth 10 | 20 | 67 |
| PS 10x6B | 398×260 | 305×190 | 250×150 | | | | 12-M6 depth 10 | | 51.5 |
| PS 8x6B | 348×260 | 255×190 | 200×150 | | | | 10-M6 depth 10 | | 48.5 |
| PS 6x4B | 354×230 | 210×160 | 150×100 | | | 10-M6 depth 10 | 15 | 27.5 | |
| PS 4x4B | 284×230 | 160×160 | 100×100 | | | 8-M6 depth 10 | 15 | 23.5 | |
| PS 2x2B | Ø174 | Ø107 | 50×50 | 360° (Rotating table) | 6-M6 depth 7 | 5 | 15.5 | | |

MM Series Accuracy (with MM main body)

| Accuracy | Conditions |
|---------------|---|
| 2.0 + L/50 μm | Calibrated by a certified engineer |
| 2.5 + L/50 μm | Rotating table + Calibrated by a certified engineer |

*L=measurement length in mm

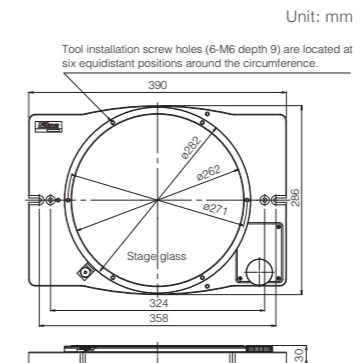
*Temperature controlled room is required to ensure accuracy.

*Please contact Nikon for details regarding calibration by a certified engineer.

Rotating Tables

Rotating Table Type 4

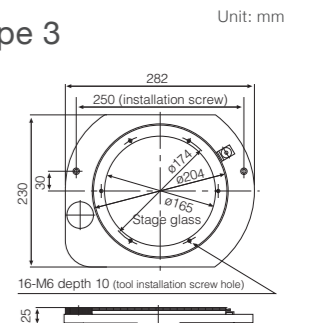
For PS 12x8C*, PS 10x6B, PS 8x6B



*When using rotating table type 4, stage stroke is limited for X and Y axis.

Rotating Table Type 3

For PS 6x4B, PS 4x4B



Rotating table specifications

| Table | Table size(mm) | Glass insert size (mm) | Rotation range | Tool installation screw hole | Weight (kg) |
|--------|----------------|------------------------|---------------------|------------------------------|-------------|
| Type 4 | ø282 | ø262 | 360° (uncalibrated) | 6-M6 depth 9 | Approx. 8 |
| Type 3 | ø204 | ø165 | 360° (uncalibrated) | 6-M6 depth 10 | Approx. 5 |

Large Stage Adjustment Knob

Enables fine adjustment of swivel plate rotation for PS 12x8C, PS 10x6B and PS 8x6B.

Tilting Center Fixture A

Used to hold machined samples for PS 2x2B, Rotating Table Type 3.



| Max. sample diameter and length when held level (mm) | Center height (mm) | Tilting angle | Weight (kg) |
|--|--------------------|----------------------|-------------|
| ø68×120 | 45 | 10°(in 1° increment) | Approx. 2.2 |



ACCESSORIES

Objectives 1x, 3x, 5x, 10x, 20x, 50x, 100x

These compact objectives feature long working distance and excellent resolution. Almost all have the same parfocal distances and come with lens adapters for quick and easy replacement.

- 3x objective is included with the measuring microscope.
- For installation on the optical head, an objective lens adapter is required. (excluding variable magnification optical head)



These objective lenses use eco-friendly glass that does not contain lead, arsenic, or toxic substances, making them meet the environmental needs of the times.

| Magnification | 1x | 3x | 5x | 10x | 20x | 50x | 100x |
|---------------------------------------|-------|------|------|-----|-----|------|------|
| WD (mm) | 79 | 75 | 64 | 48 | 20 | 15 | 4 |
| NA | 0.03 | 0.09 | 0.13 | 0.2 | 0.4 | 0.55 | 0.75 |
| Physical depth of focus (μm) | 305.5 | 33.9 | 16.2 | 6.8 | 1.7 | 0.9 | 0.4 |
| F.O.V for eyepieces (CFWN 10x F.N.20) | 20 | 6.66 | 4 | 2 | 1 | 0.4 | 0.2 |

Illuminators

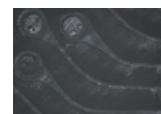
8-Segment LED Ring Light

Enables illumination from eight directions.

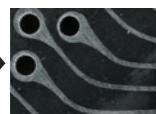
- Can be used with E-MAX
- RS-232C cable comes standard
- E-BUS cable is required to control with E-MAX



• Substrate

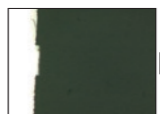


Reflective lighting

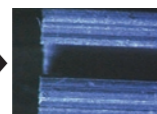


8-Segment LED ring light

• Rubber goods

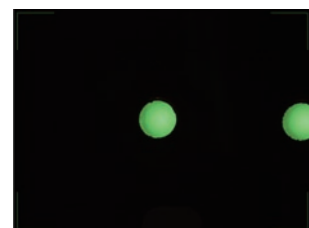


Reflective lighting

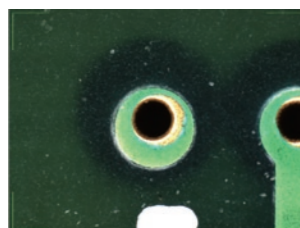


8-Segment LED ring light

• Substrate



Transmissive lighting



8-Segment LED ring light (360°)

Fiber-optics Illuminator Set

Offers easily adjustable brightness. The ring fiber illuminator minimizes shadows caused by any unevenness on the sample surface. The bifurcated fiber enables illumination from two directions.

- Cannot be used with metallurgical microscope objectives
- Cannot be mounted when using 20x, 50x and 100x measuring microscope objectives

*Ring illuminator adapter is required for installation.



LED Ring Illuminator

Ideal for use in a production environment as LEDs have long product life. Uses white LEDs with a variable intensity control and constant color temperature.

- Cannot be used with metallurgical microscope objectives
- Cannot be mounted when 20x, 50x and 100x measuring microscope objectives are used

*Ring illuminator adapter is required for installation.

Protractor Eyepieces (for MM Type only)

Note: Monocular adapter is required when using these eyepieces with trinocular tubes

Digital Protractor Eyepiece*

Rotate crosshairs in the viewfield to measure angles.

Display unit: 1 minute, 10 minutes

*Not available for S and SL models



1-Minute Reading Eyepiece

Viewfield includes crosshairs and 60° lines. Angle indexes are read by appropriate microscopes.

Measuring range: 360°



10-Minute Reading Eyepiece

Viewfield includes crosshairs and angle indexes. When the knurled ring at the lower section of the eyepiece tube is turned, the crosshairs and the vernier both rotate 180°.



Direct C-mount Adapter

Used to install C-mount camera on the measuring microscope.

- LV-TV tube is required

ACCESSORIES

The use of the CFI60-2 series of high-performance objective lenses is possible, further improving optical performance

The TU Plan Fluor series of standard objective lenses with both excellent chromatic aberration correction and long working distances

This is a universal-type standard objective lens that make possible all observation methods with a single objective lens: brightfield, darkfield, simple polarization, differential interference, and epifluorescence using not only the visible region but also the UV region.

This new optical system combines excellent chromatic aberration correction and long working distances. The edge detection for the location being measured and operability have been improved, and a wider variety of samples can be handled.



TU Plan Fluor series

• Brightfield

| Type | Magnifications | NA | WD (mm) | Physical depth of focus(μm) | F.O.V for eyepieces (CFI 10x F.N.22) |
|-------------------|----------------|------|---------|-----------------------------|--------------------------------------|
| TU Plan Fluor EPI | 5x | 0.15 | 23.5 | 12.22 | 4.4 |
| | 10x | 0.30 | 17.5 | 3.06 | 2.2 |
| | 20x | 0.40 | 19.0 | 1.72 | 1.1 |
| TU Plan EPI ELWD | 50x | 0.50 | 11.0 | 0.76 | 0.44 |
| | 100x | 0.80 | 4.5 | 0.43 | 0.22 |

• Brightfield/Darkfield

| Type | Magnifications | NA | WD (mm) | Physical depth of focus(μm) | F.O.V for eyepieces (CFI 10x F.N.22) |
|------------------|----------------|------|---------|-----------------------------|--------------------------------------|
| TU Plan Fluor BD | 5x | 0.15 | 18.0 | 12.22 | 4.4 |
| | 10x | 0.30 | 15.0 | 3.06 | 2.2 |
| | 20x | 0.40 | 19.0 | 1.72 | 1.1 |
| TU Plan BD ELWD | 50x | 0.60 | 11.0 | 0.76 | 0.44 |
| | 100x | 0.80 | 4.5 | 0.43 | 0.22 |

Objective lenses with cover glass thickness correction rings
The CFI L Plan EPI CR Series

These are objective lenses with correction rings. High-contrast observation of cells and patterns is possible without being affected by the cover glass.

• With correction mechanism

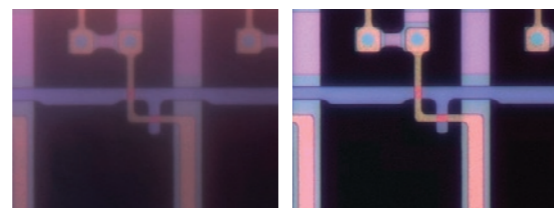
| Type | Magnification | NA | W.D.(mm) | Glass thickness correction range (mm) |
|--------------------|---------------|------|-----------|---------------------------------------|
| CFI L Plan EPI CR | 20x | 0.45 | 10.9-10.0 | 0-1.2 |
| CFI L Plan EPI CR | 50x | 0.7 | 3.9-3.0 | 0-1.2 |
| CFI L Plan EPI CRA | 100x | 0.85 | 1.2-0.85 | 0-0.7 |
| CFI L Plan EPI CRB | 100x | 0.85 | 1.3-0.95 | 0.6-1.3 |

Environmental Considerations

The TU Plan Fluor and CFI L Plan EPI CR series use eco-friendly glass that does not contain lead, arsenic, or toxic substances, making them meet the environmental needs of the times.



The CFI L Plan EPI CR series with correction rings



No correction for cover glass thickness (with 50x objective lens)

Corrected for cover glass thickness of 0.7 mm (with 50x objective lens)

Tilting trinocular eyepiece tube

Tilting trinocular eyepiece tube

The LV-TT2 tilting trinocular eyepiece tube with built-in reticle offers comfort to all users, regardless of their viewing positions. The optical path changeover of 100:0/20:80 allows simultaneous use of a monitor.



Light source

A compact LED EPI lamphouse for brightfield, darkfield, and DIC observations is available.



Manual nosepieces

A variety of manual control nosepieces are available to suit all needs.

| | Brightfield | Darkfield | DIC |
|--------|-------------|-----------|-----|
| C-N6 | ○ | — | — |
| L-NBD5 | ○ | ○ | — |
| L-NU5 | ○ | ○ | ○ |

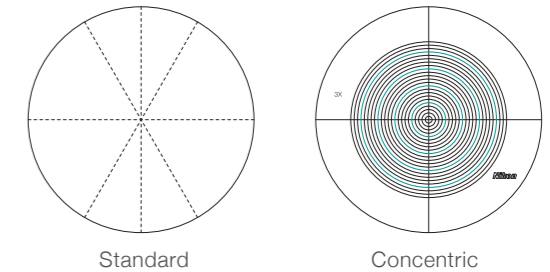
○ : Supported — : Not supported

Templates

The following dedicated templates are available to facilitate profile comparison and measurements. Templates are designed for 3x objectives.

- Standard angle templates (standard)
- Concentric (diameter 0.2-4.6)*

*Cannot be attached to monocular type



DP-E1A

Data Processor with improved accuracy and ease of use

Effectively used in combination with a measuring microscope/profile projector, the DP-E1A quickly calculates geometrical features with simple and interactive operations. Measurement results are automatically memorized as teaching steps and can be easily used as a measurement routine.

Simple & interactive operation

Feature Oriented Operation allows the user to conduct measurements by following the graphics, providing a seamless measuring environment. Measurement results are automatically memorized as teaching steps and can be easily used as a measurement routine.

GD&T compliance

Geometric Dimensioning & Tolerancing defined by the ANSI Y 14.5M Specification is supported. In addition to Location Tolerancing such as True Position, MMC and LMC, determination of Form, Orientation and Runout can be conducted interactively.

Multi-language support

English, German, Japanese and various other Asian and European languages are supported.



ACCESSORIES

E-Max Series

FOV Measurement with advanced digital image processing technology

Combined with the V3 digital camera, E-MAX series software provides various advanced measurements and processing functions, ranging from 2D data processing and image measurement, to data storage. Automated edge detection with sub-pixel processing enables more precise and repeatable measurement.



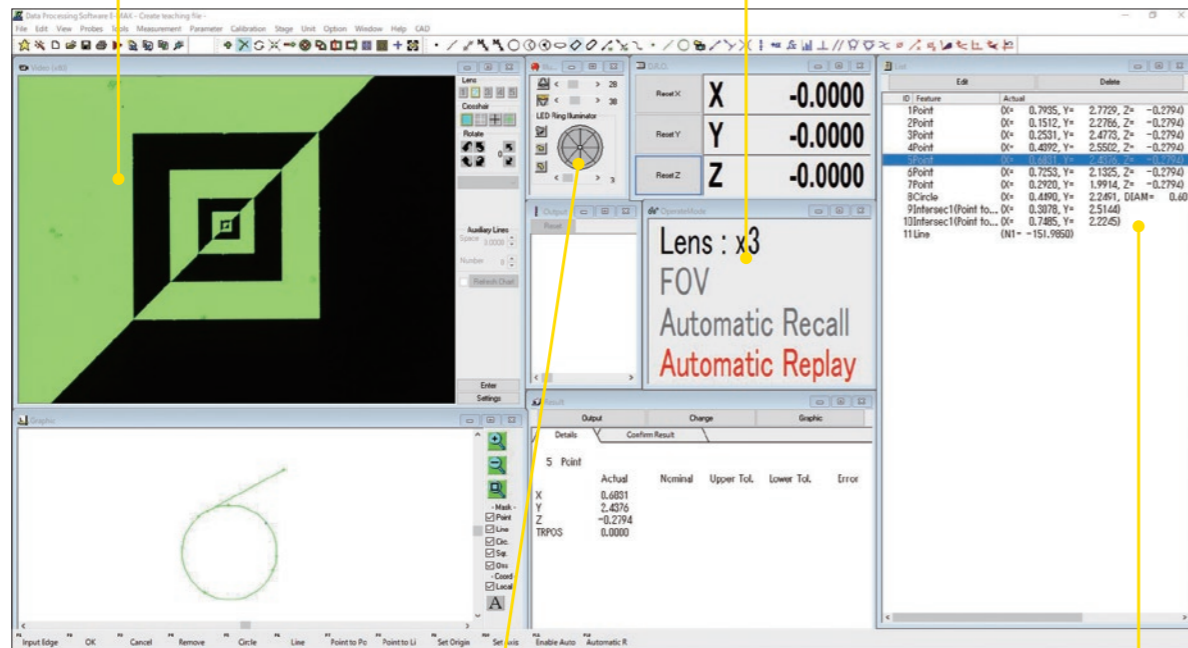
E-MAX V3 set

High-resolution digital images

High-resolution image measurement is possible with the combination of a digital camera and a measuring microscope. Images displayed in the video window can be saved in BMP or JPEG format.

Automated edge detection and automatic replay functions

Simply moving the stage to the navigated measurement area enables automatic in-screen measurement during replay. In addition, edge detection is done by automatically correcting the position of the stored image, greatly reducing measurement time and cost.



E-MAX screen

Automatic Light Adjustment

Saves the lighting conditions at the time of teaching for each point input, and reproduces them accurately on replay.

One-click output to Excel

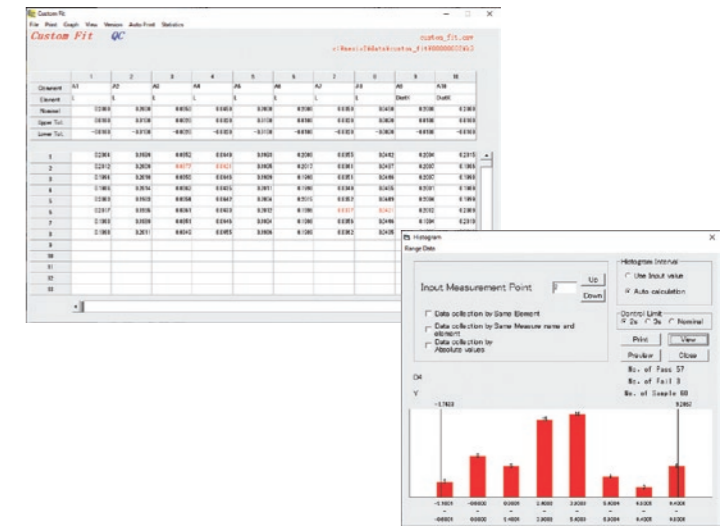
Measurement results can be displayed in Excel in real time. Even during manual measurements, measurement result files can be saved and Excel can be launched from E-MAX for speedy work.

Application Software for Measurement Support/Data Processing System

Custom Fit QC: Report and chart generating

Suitable for lot control of inspection data such as maximum value, minimum value, range, standard deviation, and process capability index.

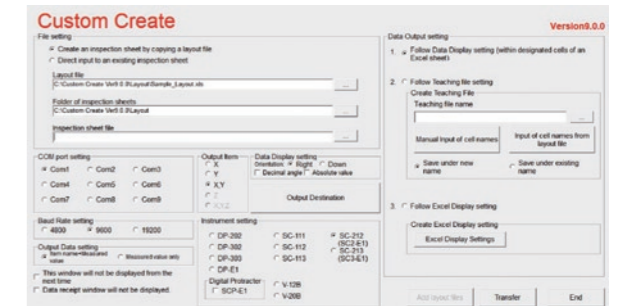
- Customization of inspection result sheets are possible, in addition to the 10 standard sheets
- BMP and JPEG files can be pasted onto the inspection result sheets
- Graphs can be automatically generated
- Displays are adjustable between degree/minute/second
- Easy to generate histograms, X-R control charts, and scatter diagrams



Custom Create: Direct link to Excel worksheets

Measurement data from counters and/or data processors can be transferred directly to Excel sheets. Multiple worksheets can be transferred at once, achieving efficient measurements.

- Compatible measuring instruments: MM-400N/800N series, DP-E1A, V-20B, V-12B
- Allows data transfer to customized inspection-result sheet forms
- 3 standard inspection result sheets are available



Operating environment:

- Windows®10 (32 bit / 64 bit)
- Microsoft Excel® 2013, 2016, 2019, 2021
- Required memory: 512MB (min)
- Codevelopment: Aria Co., Ltd.

ACCESSORIES

Counters

3-Axis/2-Axis Counters

The display unit can be mounted on either side of the main body. Counters can be connected with data processors and digital printers via the RS-232C port.



3-axis counter

2-axis counter

XY Reset Switch

Can be attached to the main body to easily reset values while using the stage.



X/Y-axis

Counter Remote Switch

Enables remote control of the counter's RESET and SEND.



Digital Thermal Printer TSP743II

Connect to the MM-400N/800N control box to print out values from the counter.



TSP743II

Foot Switch

Used to send load command to DP-E1A. Frees both hands to enhance measurement efficiency.



Calibration Scale 300 mm

Used to calibrate feeding accuracy of stage up to 300 mm. The scale is made of low expansion glass to minimize thermal error. Both 10 mm-interval sensor patterns and calibrations are provided.

Accuracy: Within 1 μm against compensation values.



Vibration Isolation Table

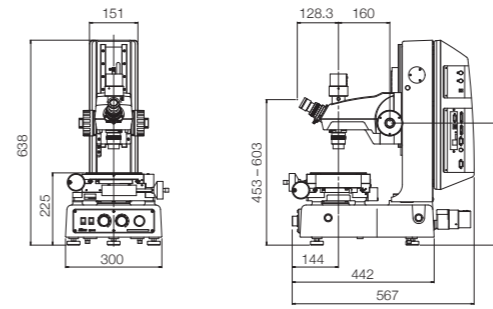
Provides a stable, even surface by reducing floor vibrations. Compatible with measuring microscopes, data processing systems, external light modulators, and computers.

| | MM-400N/800N |
|-------------------------|---|
| Installation part (WxD) | 450(W) \times 689(D)mm |
| Dimensions (WxDxH) | 1058(W) \times 689(D) \times 751(H)mm |

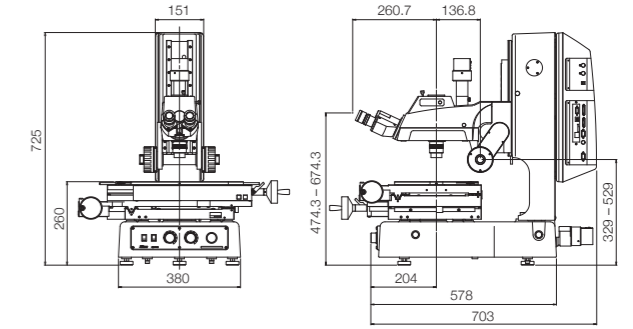


Dimensional Diagram

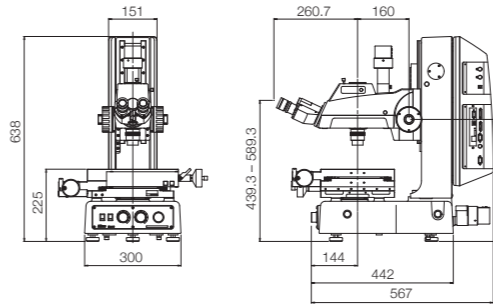
MM-400N/M
PS 2x2B Stage



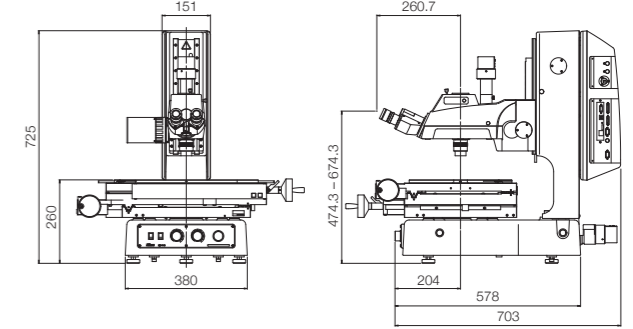
MM-800N/L
PS 10x6B Stage



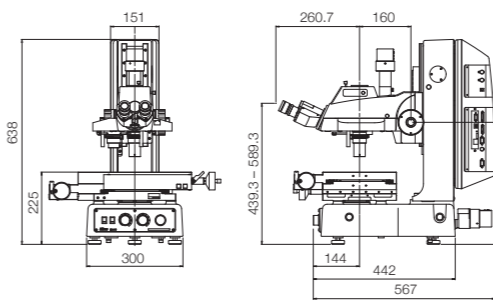
MM-400N/L
PS 4x4B Stage



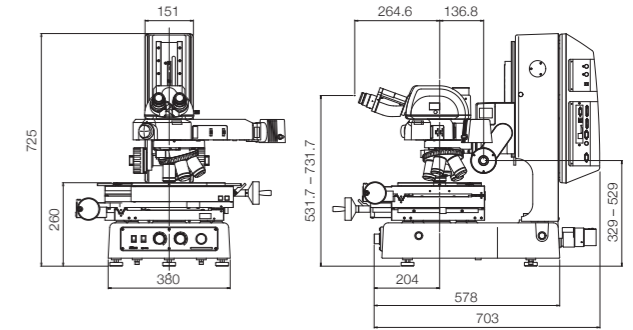
MM-800N/LM
PS 12x8C Stage



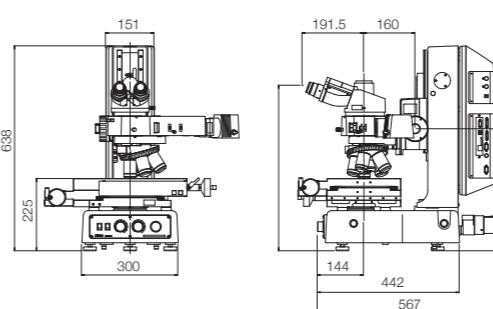
MM-400N/LV
PS 6x4B Stage



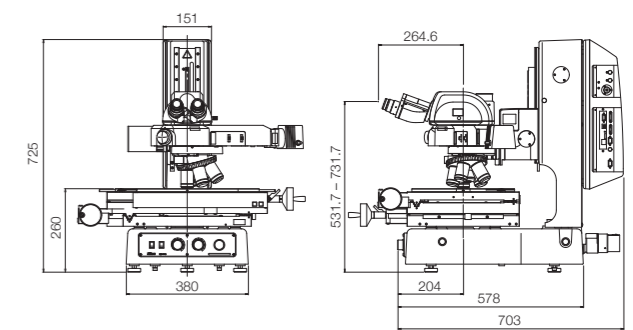
MM-800N/LU
PS 8x6B Stage



MM-400N/SLUFA
PS 6x4B Stage

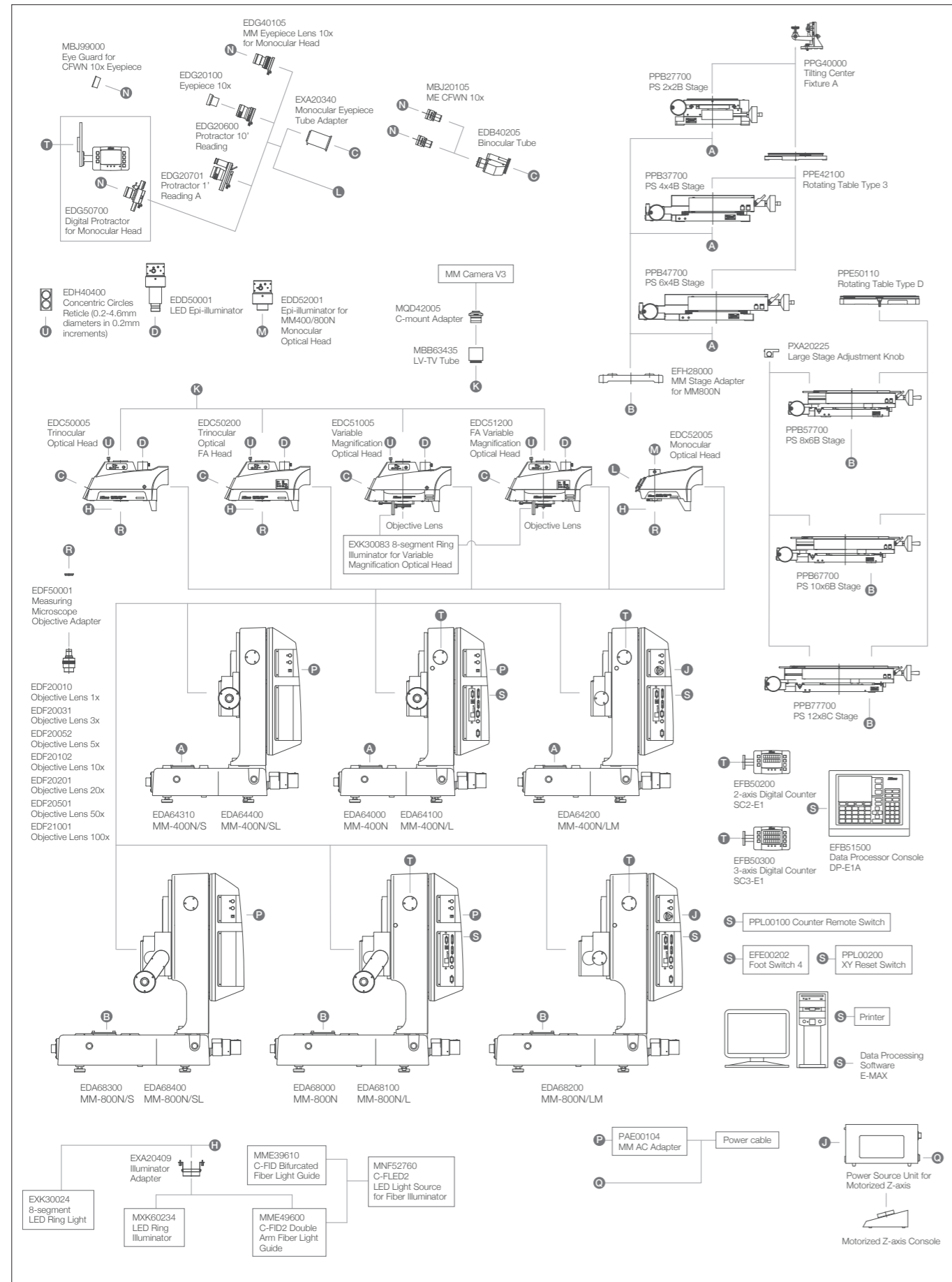


MM-800N/LMU
PS 12x8C Stage

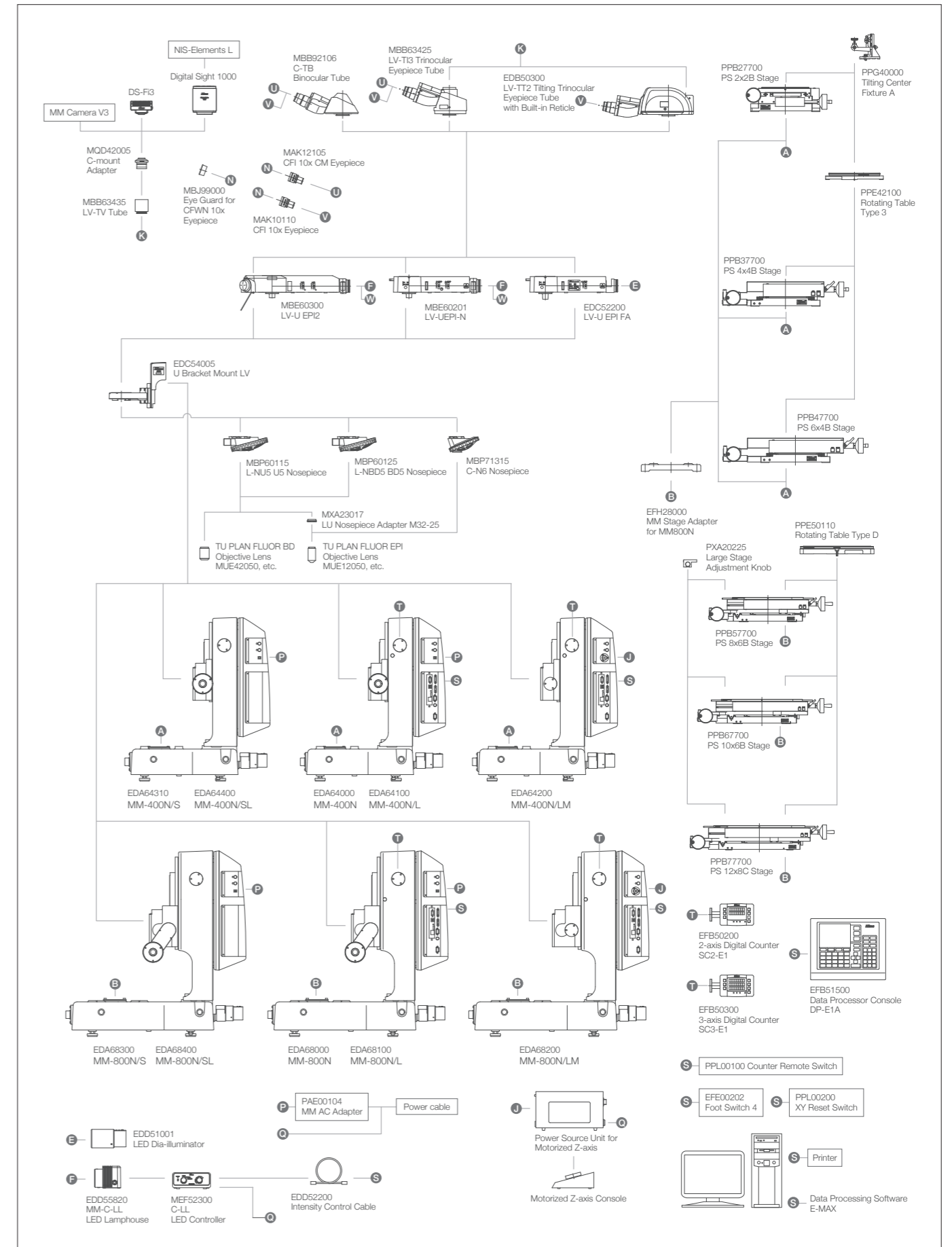


*Dimensions may vary depending on the combination of stage and optical head.

System Diagram (MM-Type)



System Diagram (U-Type)



Suggested Configuration Chart

MM-Type

| | Model | MM-400N/S | MM-400N | MM-400N/L | MM-400N/SL | MM-400N/LM | MM-800N/S | MM-800N | MM-800N/SL | MM-800N/L | MM-800N/LM |
|--|----------------------------------|--|-----------|------------|------------|-----------------|------------|----------------|------------|-----------------|-----------------|
| | Z-axis Motion | Manual | Manual | Manual | Manual | Motorized | Manual | Manual | Manual | Manual | Motorized |
| | Z-axis Scale | No | No | Yes | Yes | Yes | No | No | Yes | Yes | Yes |
| | MM Controller Backpack Interface | No | Yes | Yes | No | Yes | No | Yes | No | Yes | Yes |
| | Stage | PS 4x4B | PS 2x2B | PS 6x4B | PS 6x4B | PS 6x4B | PS 8x6B | PS 10x6B | PS 10x6B | PS 12x8C | PS 12x8C |
| | Head | Trinocular | Monocular | Trinocular | Trinocular | Trinocular | Trinocular | Trinocular | FA | Trinocular | FA |
| | Illuminators | - | - | Fiber Ring | - | 8-seg. LED Ring | - | White LED Ring | - | 8-seg. LED Ring | 8-seg. LED Ring |
| Product Code | Data Processors | - | - | DP-E1A | - | E-MAX V3 | - | DP-E1A | - | E-MAX V3 | E-MAX V3 |
| Main Body Stand | EDA64000 | MM-400N Stand | ✓ | | | | | | | | |
| | EDA64100 | MM-400N/L Stand | | ✓ | | | | | | | |
| | EDA64200 | MM-400N/LM Stand | | | | | ✓ | | | | |
| | EDA64310 | MM-400N/S Stand | ✓ | | | | | | | | |
| | EDA64400 | MM-400N/SL Stand | | | ✓ | | | | | | |
| | EDA68000 | MM-800N Stand | | | | | | ✓ | | | |
| | EDA68100 | MM-800N/L Stand | | | | | | | ✓ | | |
| | EDA68200 | MM-800N/LM Stand | | | | | | | | ✓ | ✓ |
| | EDA68400 | MM-800N/SL Stand | | | | | | | ✓ | | ✓ |
| | EDA68300 | MM-800N/S Stand | | | | | | ✓ | | | |
| PAE00104 | MM AC Adapter | ✓ | ✓ | ✓ 2pcs | ✓ | ✓ | ✓ 2pcs | ✓ | ✓ | ✓ | |
| Local supply | Power Cable | ✓ | ✓ | ✓ 2pcs | ✓ | ✓ | ✓ 2pcs | ✓ | ✓ | ✓ | |
| Optical Head and Eyepiece Tube/ Lenses Illuminators | EDC52005 | Monocular Optical Head | | ✓ | | | | | | | |
| | EDG40105 | MM Eyepiece Lens 10x for Monocular Head | | ✓ | | | | | | | |
| | EDC50005 | Trinocular Optical Head | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | |
| | EDC50200 | Trinocular Optical FA Head | | | | | | | ✓ | | ✓ |
| | EDB40205 | Binocular Tube | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | MBJ20105 | CFWN 10x Eyepiece (2pcs) | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | EDD50001 | LED Epi-Illuminator | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | EDD52001 | Epi-Illuminator for MM400N/800N Monocular Optical Head | | ✓ | | | | | | | |
| | EXK30024 | 8-segment LED Ring Light (100-240V) | | | | | ✓ | | | ✓ | ✓ |
| | EXA20411 | E-BUS Cable | | ✓ | | | ✓ | | ✓ | ✓ | ✓ |
| | Local supply | Power Cable | | | | | ✓ | | ✓ | ✓ | ✓ |
| | EXA20409 | Illuminator Adapter | | ✓ | | | | ✓ | | | |
| | MME39610 | C-FIR Ring Fiber Illuminator Guide | | ✓ | | | | | | | |
| | MNF52760 | C-FLED2 LED Light Source for Fiber Illuminator | | ✓ | | | | | | | |
| | MXK60234 | LED Ring Illuminator (100-240V) (ESD Type only) | | | | | | ✓ | | | |
| Objective Lenses | EDF20031 | Objective Lens 3x | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | EDF20102 | Objective Lens 10x | | | | | | | ✓ | | ✓ |
| | EDF50001 | Measuring Microscope Objective Adapter | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ 2pcs | ✓ | ✓ 2pcs |
| Stages and Rotating Tables | PPB27700 | PS 2x2B Stage | | ✓ | | | | | | | |
| | PPB37700 | PS 4x4B Stage | ✓ | | | | | | | | |
| | PPB47700 | PS 6x4B Stage | | | ✓ | ✓ | | | | | |
| | PPB57700 | PS 8x6B Stage | | | | | ✓ | | | | |
| | PPB67700 | PS 10x6B Stage | | | | | | ✓ | ✓ | | |
| | PPB77700 | PS 12x8C Stage | | | | | | | | ✓ | ✓ |
| | EFH28000 | MM Stage Adapter for MM800 (PS 6x4B or smaller) | | | | | | | | | |
| | PXA20225 | Large Stage Adjustment Knob | | | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| | PPE42100 | Rotating Table Type 3 | | | ✓ | ✓ | ✓ | | | | |
| | PPE50110 | Rotating Table Type 4 | | | | | ✓ | ✓ | ✓ | | |
| Data Processing System and Printer | EFB50200 | 2-axis Digital Counter SC2-E1 | | ✓ | | | | | | | |
| | EFB50300 | 3-axis Digital Counter SC3-E1 | | | ✓ | ✓ | | | | ✓ | ✓ |
| | EFB51500 | Data Processor Console DP-E1A | | ✓ | | | ✓ | | | | |
| | PXA20218 | SC-213 Z-signal Cable | | | | | | ✓ | | | |
| | PPL00200 | XY Reset Switch | | ✓ | | | | | | | |
| | EFE00202 | Foot Switch 4 | | | ✓ | | ✓ | | | ✓ | ✓ |
| | EXK30330 | Thermal Printer Model TSP743 II | | | | | | ✓ | | | |
| | EXA20478 | 9-25 Pins RS-232C Cross Cable (2 m) | | | | | | ✓ | | | |
| | EXK30105 | Printer Paper | | | | | | ✓ | | | |
| | Local supply | Power Cable | | | ✓ | | | ✓ | | | |
| | EDF11000 | Data Processing Software E-MAX | | | | | | | | ✓ | ✓ |
| | EXA20371 | E-MAX Calibration Plate | | | | | ✓ | | | ✓ | ✓ |
| | EDE50100 | MM Camera V3 | | | | | ✓ | | | ✓ | ✓ |
| | EDE50110 | MM Camera V3 Cable | | | | | ✓ | | | ✓ | ✓ |
| | MBB63435 | LV-TV Tube | | | | | ✓ | | | ✓ | ✓ |
| MQD42005 | C-mount Adapter | | | | | ✓ | | | ✓ | ✓ | |

• MM Cable for Simultaneous Use (PXA20224) is required for simultaneous use of Foot Switch and [RESET/SEND] buttons.

U-Type

| | Model | MM-400N/U | MM-400N/LU | MM-400N/LMU | MM-800N/SU | MM-800N/LU | MM-800N/SLU | MM-800N/LMU | MM-800N/LMU | MM-800N/SLU |
|--|----------------------------------|--|-------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|
| | Z-axis Motion | Manual | Manual | Motorized | Manual | Manual | Manual | Motorized | Manual | Manual |
| | Z-axis Scale | No | Yes | Yes | No | Yes | Yes | Yes | Yes | No |
| | MM Controller Backpack Interface | Yes | Yes | Yes | No | Yes | No | Yes | Yes | No |
| | Stage | PS 4x4B | PS 4x4B | PS 6x4B | PS 6x6B | PS 12x8C | PS 10x6B | PS 12x8C | PS 12x8C | PS 10x6B |
| | Head | C-TB | TT2 | TT3 | TT3 | TT2 | TT2 | TT2 | TT2 | TT3 |
| | Illuminator | LV-EPI LED | LV-U EPI FA | LV-U EPI2 | LV-U EPI | LV-U EPI FA | LV-U EPI FA | LV-U EPI FA | LV-U EPI2 | LV-U EPI FA |
| | Illuminators | - | E-MAX V3 | E-MAX V3 | - | E-MAX V3 | - | E-MAX V3 | E-MAX V3 | - |
| Product Code | Data Processors | BF | BD-DIC | BD-DIC-FL | BF | BD-DIC | BD | BD-DIC | BD-DIC-FL | BF |
| Main Body Stand, U-bracket and Illuminator | EDA64000 | MM-400N Stand | ✓ | | | | | | | |
| | EDA64100 | MM-400N/L Stand | | ✓ | | | | | | |
| | EDA64200 | MM-400N/LM Stand | | | | ✓ | | | | |
| | EDA64400 | MM-400N/SL Stand | | | | | | | | |
| | EDA68000 | MM-800N Stand | | | | | | | | |
| | EDA68100 | MM-800N/L Stand | | | | | | | ✓ | |
| | EDA68200 | MM-800N/LM Stand | | | | | | | ✓ | ✓ |
| | EDA68400 | MM-800N/SL Stand | | | | | | | ✓ | ✓ |
| | EDA68300 | MM-800N/S Stand | | | | | | ✓ | | ✓ |
| | PAE00104 | MM AC Adapter | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Local supply | Power Cable | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| EDC54005 | U Bracket Mount LV | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Stages and Rotating Tables | PPB37700 | PS 4x4B Stage | ✓ | ✓ | | | | | | |
| | PPB47700 | PS 6x4B Stage | | | ✓ | | | | | |
| | PPB57700 | PS 8x6B Stage | | | | ✓ | | | | |
| | PPB67700 | PS 10x6B Stage | | | | | ✓ | | | ✓ |
| | PPB77700 | PS 12x8C Stage | | | | | | ✓ | | ✓ |
| | EFH28000 | MM Stage Adapter for MM800 (PS 6x4B or smaller) | | | | | | | ✓ | ✓ |
| | PXA20225 | Large Stage Adjustment Knob | | | | | ✓ | | ✓ | ✓ |
| | PPE42100 | Rotating Table Type 3 | | | | | | ✓ | | ✓ |
| | PPE50110 | Rotating Table Type 4 | | | | | | | ✓ | ✓ |
| | PPE50110 | Rotating Table Type 4 | | | | | | | ✓ | ✓ |
| Data Processing System and Printer | EFB50200 | 2-axis Digital Counter SC2-E1 | ✓ | | | | | | | |
| | EFB50300 | 3-axis Digital Counter SC3-E1 | | ✓ | ✓ | | | ✓ | ✓ | |
| | PXA20218 | SC-213 Z-signal Cable | | | | | | | | ✓ |
| | EFB50201 | LV-U EPI (BF DF DIC) | | | | ✓ | | | | |
| | EDC52200 | LV-U EPI FA | | ✓ | | | ✓ | ✓ | ✓ | ✓ |
| | EDD51001 | LED Dia-Illuminator (used for U-FA as Epi-Illuminator) | | ✓ | | | ✓ | ✓ | ✓ | ✓ |
| | MBE60300 | LV-U EPI2 (BF DF DIC FL) | | | ✓ | | | | | ✓ |
| | MBN66950 | LV-C-LCB Color Balance Filter | | | | ✓ | | | | ✓ |
| | EDD55820 | MM-C-LL LED Lamphouse | | | | ✓ | | | | ✓ |
| | MEF52300 | C-LL LED Controller | | | | ✓ | | | | ✓ |
| Local supply | Power Cable | | | | ✓ | | | | ✓ | |
| Filters and Light Sources | MBB92106 | C-TB Binocular Tube | ✓ | | | | | | | |
| | MBB63425 | LV-TT3 Trinocular Eyepiece Tube | | | ✓ 2pcs | ✓ | | | | |
| | EDB50300 | LV-TT2 Trinocular Tube with Built-in Reticle | | | ✓ | | ✓ | | ✓ | ✓ |
| | MAK10110 | CFI 10x Eyepiece | ✓ | ✓ | ✓ | ✓ | | | | ✓ |
| | MAK12105 | CFI 10x CM Eyepiece with Crosshairs | ✓ | ✓ | ✓ | ✓ | | | | ✓ |
| | MBP60115 | L-NU5 U5 Nosepiece ESD | | ✓ | ✓ | | ✓ | | | |
| | MBP60125 | L-NBD5 BD5 Nosepiece | | | | | | ✓ | | |
| | MBP71316 | C-N6 Nosepiece (up to 5 objective lenses) | ✓ | | | | ✓ | | | ✓ |
| | MUE12050 | TU PLAN FLUOR EPI 5x | ✓ | | | | ✓ | | | ✓ |
| | MUE12100 | TU PLAN FLUOR EPI 10x | ✓ | | | | ✓ | | | ✓ |
| Tubes and Eyepiece Lenses | MUE21200 | TU PLAN EPI ELWD 20xA | ✓ | | | | ✓ | | | ✓ |
| | MUE21500 | TU PLAN EPI ELWD 50xA | ✓ | | | | ✓ | | | ✓ |
| | MUE42050 | TU PLAN FLUOR BD 5x | | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| | MUE42100 | TU PLAN FLUOR BD 10x | | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| | MUE61200 | TU PLAN BD ELWD 20x | | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| | MUE61500 | TU PLAN BD ELWD 50x | | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| | MUE61900 | TU PLAN BD ELWD 100x | | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| | MBP60170 | L2-DIC DIC Prism for Eclipse Microscopes | | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| | MBN66923 | LV-PO Polarizer for LV-U EPI2 (MBE60200) | | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| | MBN66922 | L-AN Analyzer for LV-U EPI2 (MBE60200) | | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| Objective Lenses and Accessories | MBN66921 | YM-PO Polarizer for LV-U EPI FA (EDC52200) | | ✓ | | | | ✓ | | ✓ |

LED Episcopic & Diascopic Illuminator is a Class 1 LED Product

CLASS 1 LED PRODUCT

8-segment LED Ring Light is a Class 2 LED Product

**CAUTION – CLASS 2 LED RADIATION
DO NOT STARE INTO THE BEAM**

ISO/IEC 17025 Certified

Nikon Corporation Industrial Solutions Business Unit is certified as an ISO/IEC 17025 accredited calibration laboratory for measuring microscopes and measuring projectors (profile projectors) by the Japan Accreditation Board for Conformity Assessment.

(ISO/IEC 17025: International standard, which specifies the general requirements to ensure that a laboratory is competent to carry out specific tests and/or calibrations)

| | |
|---------------------------------------|--|
| Date of Initial accreditation: | September 8, 2006 |
| Scope of accreditation: | Measuring microscopes |
| Accredited section: | Industrial Solutions Business Unit |
| Calibration site: | Customer's laboratory (field service) |
| Expanded Uncertainty: | X/Y-axis indication accuracy of measuring microscopes Linear scale up to 300 mm: $(0.70 + 5.0 \times 10^{-3} \times L) \mu\text{m}$ |

Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer. March 2025 ©2006-2025 NIKON CORPORATION

N.B. Export of the products* in this brochure is controlled under the Japanese Foreign Exchange and Foreign Trade Law. Appropriate export procedures shall be required in case of export from Japan.

*Products: Hardware and its technical information (including software)



WARNING TO ENSURE CORRECT USAGE, READ THE CORRESPONDING MANUALS CAREFULLY BEFORE USING THE EQUIPMENT.



NIKON CORPORATION

1-5-20, Nishi-1, Shinagawa-ku, Tokyo 140-8601, Japan
Tel: +81 3 6743 5742
<https://industry.nikon.com/>

ISO 14001 Certified
for NIKON CORPORATION

ISO 9001 Certified
for NIKON CORPORATION
Industrial Solutions Business Unit

NIKON METROLOGY EUROPE NV

Interleuvenlaan 86, 3001 Leuven, Belgium
Tel: +32 16 74 01 01
Sales.NM@nikon.com

NIKON METROLOGY UK LTD.

UNITED KINGDOM Tel: +44 1332 811 349
Sales.UK.NM@nikon.com

NIKON METROLOGY SARL

FRANCE Tel: +33 1-60 86 09 76
Sales.France.NM@nikon.com

NIKON METROLOGY GMBH

GERMANY Tel: +49 211 4544 6951
Sales.Germany.NM@nikon.com

NIKON METROLOGY, INC.

12701 Grand River Road, Brighton, MI 48116 U.S.A.
Tel: +1 810 220 4360
Sales.NM-US@nikon.com

NIKON METROLOGY - MEXICO

Sales.NM-US@nikon.com

NIKON PRECISION (SHANGHAI) CO., LTD.

CHINA Tel: +86 21 6841 2050 (Shanghai)
CHINA Tel: +86 10 5831 2028 (Beijing branch)
CHINA Tel: +86 20 3882 0551 (Guangzhou branch)
Web.Nis@nikon.com

NIKON INSTRUMENTS KOREA CO., LTD.

KOREA Tel: +82 2 6288 1900
NIK.Sales@nikon.com

NIKON SINGAPORE PTE LTD.

SINGAPORE Tel: +65 6559 3651
NSG.Industrial-sales@nikon.com

PT. NIKON INDONESIA

INDONESIA Tel: +62 213 873 5005
PTN.Instruments@nikon.com

NIKON SALES (THAILAND) CO., LTD.

THAILAND Tel: +66 2633 5100
NST.Inst@nikon.com