



Industrial Microscopes LV150N LED/LV150NA LED/LV100ND LED/LV100NDA LED

ECLIPSE LV-N

Industrial Microscopes



Together with new optics, ECLIPSE is evolving to the next stage.

Modularized to meet industrial microscope applications in diverse fields of industry, including semiconductor devices, packaging, FPDs, electronic components, materials, and precision molds.

The ECLIPSE LV Series continues to evolve while offering various stand and illumination units selectable according to the observation method and purpose.

Four types – motorized and manual types plus dedicated reflected illumination and combined reflected/transmitted illumination types – are available to meet any application.

Illuminators

Expanded lineup

Added a high color-rendering light source to the existing lineup.
With the use of LED, Nikon illuminators are power saving and achieve long life.



Evolved optical performance

Nikon's CFI60 optical system, highly evaluated for its unique concept of high NA combined with long working distance has further evolved to achieve the apex in long working distance, chromatic aberration correction, and light weight.

Easy Operation

Combination with digital camera

Detection of microscope information, including objective lens information, and motorized unit microscope operation are now possible using imaging software, for more efficient observation and image capture.

Observation Methods

Diverse observation / optical contrast methods

Combinations of a full range of accessories expand the observation methods available when using transmitted illumination, allowing adaptability to a greater diversity of samples.

All models enable brightfield, darkfield, differential interference, fluorescence, polarizing, and two-beam interferometry observation, while the LV100ND LED and LV100NDA LED also allow transmission-type differential interference, darkfield, polarizing, and phase contrast observation.



LV-N Series

Model features



LV150N LED



LV150NA LED

Dedicated reflected illumination models

Microscope type	Manual type				Motorized type (Nosepiece)		
Compatible observation methods		Brightfield	Darkfield	DIC	Fluorescence	Polarizing	Two-beam Interferometry
	Episcopic	○	○	○	○	△	○
	- Use an objective lens appropriate to the observation method. △ : only simple polarizing observation						
Eyepiece tubes	Binocular Tube C-TB, Trinocular Tube LV-TI3 Tilting Trinocular Tube LV-TT3 (centering and focus adjustment mechanism included) Polarizing Binocular Tube P-TB2, Polarizing Trinocular Tube P-TT3						
Compatible stages	- LV-S32 3x2 stage (Stroke: 75 x 50 mm with glass plate) - LV-S32SPL ESD plate and LV-SHA stage handle adapter can be attached - LV-S64 6x4 stage (Stroke: 150 x 100 mm with glass plate) - LV-SHA stage handle adapter can be attached - LV-S6 6x6 stage (Stroke: 150 x 150 mm) - LV-S6WH wafer holder, LV-S6PL ESD plate, and LV-SHA stage handle adapter can be attached						
Integration with cameras for microscopes	Digital Sight 10, Digital Sight 100, Digital Sight 1000*						
	Objective lens information detection** (when used with combination of Intelligent Nosepiece LV-NU5IN and LV-INAD)				Objective lens information detection and control**		



Imaging Software
NIS Elements
Advanced Solutions for your Imaging World



LV100ND LED



LV100NDA LED

Combined reflected/transmitted illumination models

Manual type

Motorized type
(Nosepiece / light intensity / aperture stop / observation method selector)

	Brightfield	Darkfield	DIC	Fluorescence	Polarizing	Two-beam Interferometry	Phase-contrast
Episcopic	○	○	○	○	○	○	—
Diascopic	○	○	○	—	○	—	○

- Use an objective lens appropriate to the observation method.

Binocular Tube C-TB, Trinocular Tube LV-TI3

Tilting Trinocular Tube LV-TT3 (centering and focus adjustment mechanism included)

Polarizing Binocular Tube P-TB2, Polarizing Trinocular Tube P-TT3

- LV-S32 3x2 stage (Stroke: 75 x 50 mm with glass plate)
 - LV-S32SGH slide glass holder and LV-SHA stage handle adapter can be attached
- LV-S64 6x4 stage (Stroke: 150 x 100 mm with glass plate)
 - LV-SHA stage handle adapter can be attached
- LV-SRP P revolving stage
- NIU-CSRR2 Ni-U right handle rotatable ceramic stage (Stroke: 78 x 54 mm)
- C-CSR2S right handle stage (Stroke: 78 x 54 mm: Used with stage adapter LV-SAD)

Digital Sight 10, Digital Sight 100, Digital Sight 1000*

- Objective lens information detection**
(when used with combination of Intelligent Nosepiece LV-NU5IN and LV-INAD)

- Information detection and control of objective lens, light intensity, aperture stop, and observation method (brightfield / darkfield / fluorescence)**

Note: *Information detection and control of accessories are not available with NIS-Elements LE, L, and F. Please use NIS-Elements D for these functions.
**Excluding Digital Sight 1000

CFI60-2

Nikon's CFI60 optical systems are highly evaluated for their unique concept of high NA combined with a long working distance. These lenses have been developed further and evolved achieving the apex in long working distance specifications, correct chromatic aberration, and an optimized lens weight.

T Plan & TU Plan Fluor & TU Plan Apo Lenses

Standard Plan objective lenses

Standard objective lenses

TU Plan Fluor Series

EPI/BD 5x/10x/20x/50x/100x

Long WD

Semi-apo

Light weight

Fly-eye lens

Enable brightfield, darkfield, simple polarizing, sensitive polarizing, differential interference, and epi-fluorescence observations with just one lens. Achieves superior chromatic aberration performance with long working distance for all magnifications to adapt to any application.



*Brightfield observation (EPI) objective lens

Model	Magnification	NA	Working Distance (mm)
TU Plan Fluor EPI (brightfield type)	5x	0.15	23.5
	10x	0.30	17.5
	20x	0.45	4.5
	50x	0.80	1.0
TU Plan Fluor BD (brightfield/darkfield type)	100x	0.90	1.0
	* 5x	0.15	18.0
	* 10x	0.30	15.0
	* 20x	0.45	4.5
	50x	0.80	1.0
	100x	0.90	1.0

* Uses fly-eye lens.

Low-magnification objective lenses

T Plan EPI

EPI 1x/2.5x

Wide field of view

Supports both conventional observations using an analyzer/polarizer and work-efficiency-focused observations without an analyzer/polarizer.

Model	Magnification	NA	Working Distance (mm)
T Plan EPI (brightfield type)	1x	0.03	3.8
	2.5x	0.075	6.5

Apochromatic objective lenses

TU Plan Apo Series

EPI/BD 50x/100x/150x

Long WD

Apo

Light weight

Using Fresnel lenses, these lenses achieve significantly longer operating distances while maintaining the superior chromatic aberration performance of apochromatic lenses.

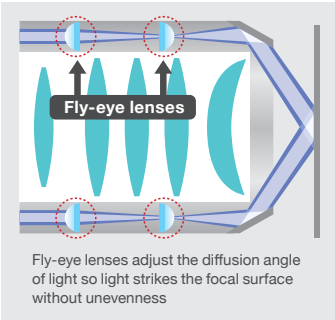
Model	Magnification	NA	Working Distance (mm)
TU Plan Apo EPI (brightfield type)	50x	0.8	2.0
	100x	0.9	2.0
	150x	0.9	1.5
TU Plan Apo BD (brightfield/darkfield type)	50x	0.8	2.0
	100x	0.9	2.0
	150x	0.9	1.5

*Brightfield observation (EPI) objective lens

Dark Field Illumination

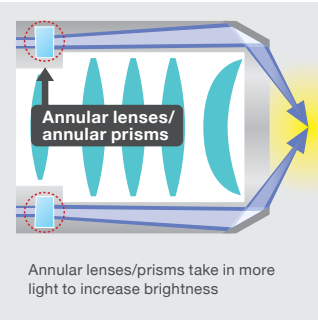
Fly-eye lens

Through the use of fly-eye lenses, the CFI60-2 optical system offers bright darkfield illumination throughout the field of view with little unevenness, even for low-magnification lenses.



Darkfield illumination system

As NA and WD improve, objective lenses increase in outside diameter. However, as the width of incident light is fixed, light intensity decreases with conventional illumination systems. The illumination system uses annular lenses or annular prisms to increase captured light and achieve bright darkfield illumination with no deterioration.



TU Plan ELWD & T Plan SLWD Lenses

Long working distance / Super-long working distance objective lenses

Long working distance objective lenses

TU Plan ELWD Series

EPI/BD 20x/50x/100x

Long WD

Semi-apo

Light weight

With the phase Fresnel lenses, these objective lenses enable long working distances while offering higher level chromatic aberration correction than conventional objective lenses. This improves operability for samples with different heights.



*Brightfield observation (EPI) objective lens

Model	Magnification	NA	Working Distance (mm)
TU Plan EPI ELWD (brightfield type)	20x	0.4	19.0
	50x	0.6	11.0
	100x	0.8	4.5
TU Plan BD ELWD (brightfield/darkfield type)	20x	0.4	19.0
	50x	0.6	11.0
	100x	0.8	4.5

Super-long working distance objective lenses

T Plan EPI SLWD

EPI 10x/20x/50x/100x

Long WD

Semi-apo

Light weight

Improving on chromatic aberration while prioritizing working distance, the T Plan SLWD Series achieve the best-in-class super-long working distance. The SLWD 10x (WD: 37 mm) lens enables use with a greater diversity of samples.

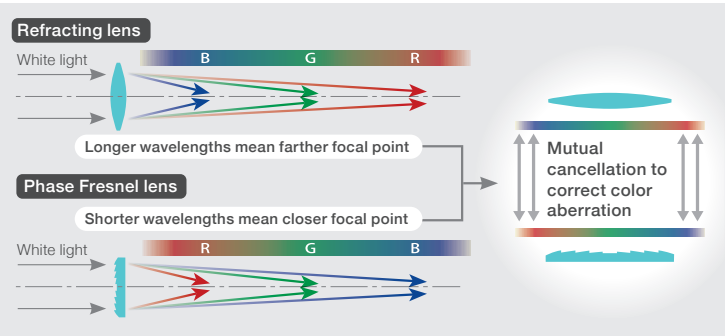


Model	Magnification	NA	Working Distance (mm)
T Plan EPI SLWD (brightfield type)	10x	0.2	37.0
	20x	0.3	30.0
	50x	0.4	22.0
	100x	0.6	10.0

Phase Fresnel Lenses

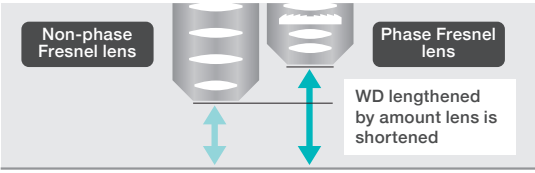
Color aberration correction

Conventional lenses rely upon the refraction of light to form an image. As the strength of refraction varies according to color (wavelength), the image is formed starting with the light closest to the lens, in the order of blue, green, and red. In contrast, a phase Fresnel lens uses the diffraction of light to form an image starting with the light closest to the lens, this time, red, green, and blue, yielding a property opposite that of refraction. Combining these two lenses cancels out the color aberration of each and enables an image with little color aberration.



Realization of Long Working Distance

Correction of color aberration, even with short distances between lenses, is possible with the use of phase Fresnel lenses. This enables longer working distance than that of conventional lenses.



Other lenses

Objective lenses with glass thickness correction features

CFI L Plan EPI CR

20x/50x/100x

Equipped with corrective features that enable high contrast observation of cells or patterns, these observation lenses are unaffected by the glass substrate.



Model	Magnification	NA	Working Distance (mm)
CFI L Plan EPI CR (brightfield type)	20x CR	0.45	10.90 - 10.00
	50x CR	0.70	3.90 - 3.00
	100x CRA	0.85	1.20 - 0.85
	100x CRB	0.85	1.30 - 0.95

Objective lenses for brightfield observation

CFI LE Plan EPI

EPI 5x/10x/20x/50x/100x

LE Plan EPI



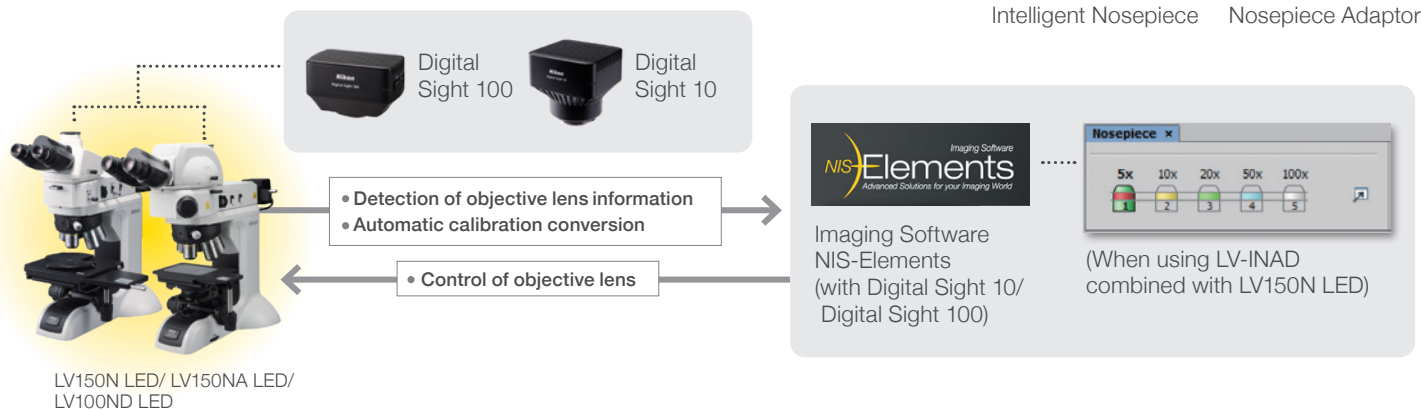
Model	Magnification	NA	Working Distance (mm)
LE Plan EPI (brightfield type)	5x	0.1	31.0
	10x	0.25	13.0
	20x	0.4	3.6
	50x	0.75	0.5
	100x	0.9	0.31

Combination with digital camera

LV150N LED / LV150NA LED / LV100ND LED Objective lens information detection and control

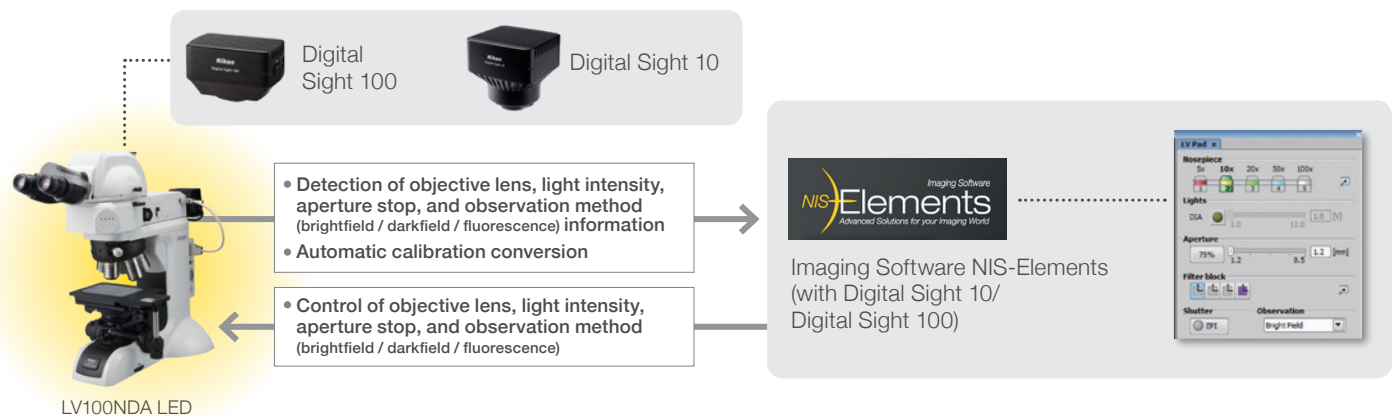
Information about the objective lens being used can be detected when combining the Intelligent Nosepiece LV-NU5IN and the Nosepiece Adaptor LV-INAD. The information is automatically converted to appropriate calibration data when changing the magnification.

In addition, the LV150NA LED allows switching of objective lenses via the imaging software.



LV100NDA LED Microscope information detection and control

The LV100NDA LED allows detection of information and control of objective lenses, light intensity, aperture stop, and observation method (brightfield / darkfield / fluorescence) via the imaging software, enabling optimization of the conditions vital for image acquisition.



Compatibility Chart of Information Detection and Control by Model

◎ : Information detection and control possible ○ : Information detection only	LV150N LED/LV100ND LED (When using LV-NU5IN and LV-INAD)	LV150NA LED	LV100NDA LED (When using LV-UEPI2A illuminator)
	Digital Sight 10/Digital Sight 100 (+NIS-Elements)		
Objective lens	○	◎	◎
Reflected illumination (ON/OFF, light intensity adjustment)	—	—	◎ *When using C-LL-1
Transmitted illumination (ON/OFF, light intensity adjustment)	—	—	◎
Aperture stop	—	—	◎
Observation method selector (brightfield / darkfield / fluorescence)	—	—	◎

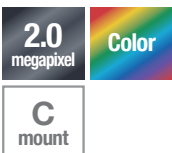
Note: With NIS-Elements LE, functions above are not available. Use NIS-Elements D/Br/Ar.

Digital Sight series

Microscope Camera

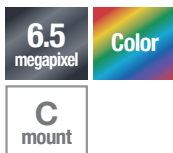
Digital Sight 1000

Equipped with a 2 megapixel CMOS image sensor, it can capture full HD microscope images. By connecting a microscope to this camera and HDMI monitor, movies and images can be captured and saved onto a pre-inserted SD card in the camera.



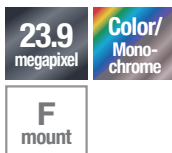
Digital Sight 100

Combined with industrial microscopes, the camera delivers 6.5-megapixel resolution (2944x2208 pixels). HDMI monitor output enables on-site observation without a PC.



Digital Sight 10

This high-resolution camera captures both color and monochromatic images at up to 6,000 x 3,984 pixels. This enables the wide range of images to be captured and then many of them to be stitched together making a single and large combined image.



MaxFrame Rate	30 fps (1920x1080)	60 fps (1600x900)	55 fps (2000x1328)
Max Recordable Pixels	1920x1080	2944x2208	6000x3984

*Digital Sight 100, standalone, delivers up to 17.7-megapixel resolution (4864 x 3648 pixels).

Imaging software NIS-Elements

Using a desktop PC



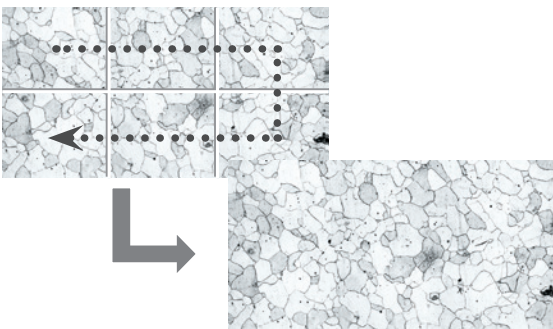
Using a desktop PC / tablet PC



Free software that allows intuitive control of microscope cameras from the PC. Supports Wi-Fi connectivity when used with the Digital Sight 100.

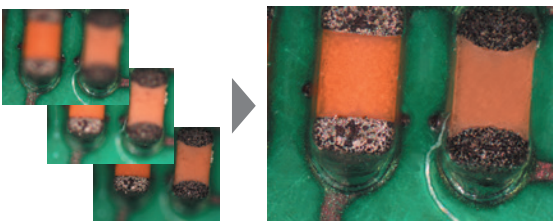
Image Stitching

Stitches together images acquired from multiple fields of view to create one image.



EDF (Extended Depth of Focus)

Create a single, all-in-focus image from images of differing focus.



Wide variety of tools

Enables the conducting of simple measurements on images, with input of lines and comments. These can also be written onto and saved with the image, and measurement data can be output.

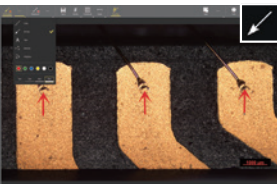
Measurement function

- Line distance
- Area
- Circle
- Angle
- Circle distance
- Pitch distance



Annotate function

- Line
- Arrow
- Text
- Marker
- Polyline



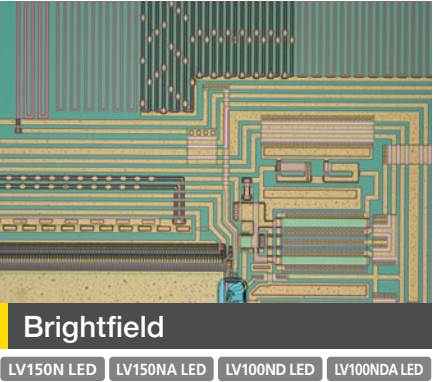
Scene Mode

Ten camera setting patterns for optimal color reproduction and contrast for each microscope light source, observation method and type of sample, as well as custom settings, can be selected.

- Wafer/IC
- Circuit board
- Metal, Ceramic/Plastic
- Flat Panel Display

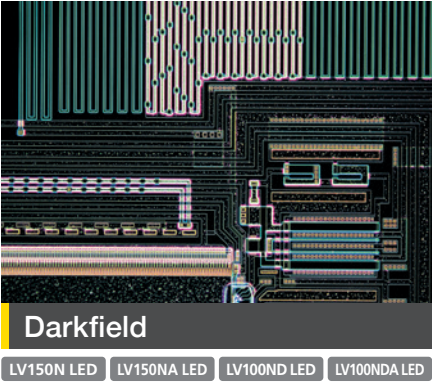
Observation Methods

Compatible with a wide range of observation / optical contrast methods: In reflected light mode -brightfield, darkfield, polarizing, differential interference, epi-fluorescence, and two-beam interferometry, and in Transmitted light mode- brightfield, darkfield, polarizing, differential interference, and phase contrast.



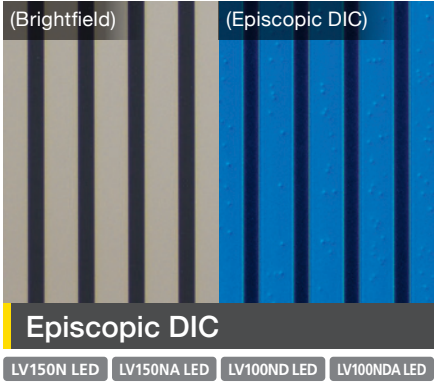
Semiconductors (IC wafers)

From its objective lenses to its illumination systems, the LV-N Series offers thorough measures against flare and provides bright, high-contrast images.



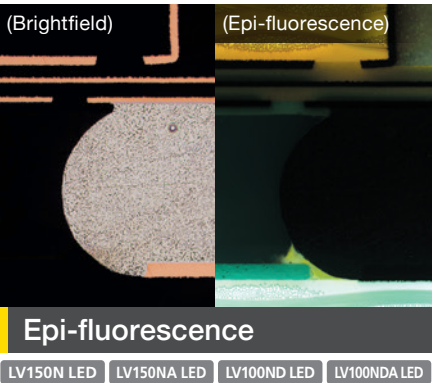
Semiconductors (IC wafers)

The use of Nikon's unique concepts in the objective lens darkfield illumination system enables bright darkfield observation and provides high-sensitivity detection of level differences and defects in samples.



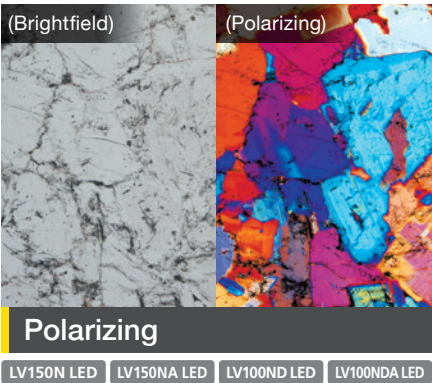
Substrate

Standard-type and high-contrast-type DIC sliders are available to match samples. The LV-N Series is effective for applications such as observation of minute level differences in devices and precision molds.



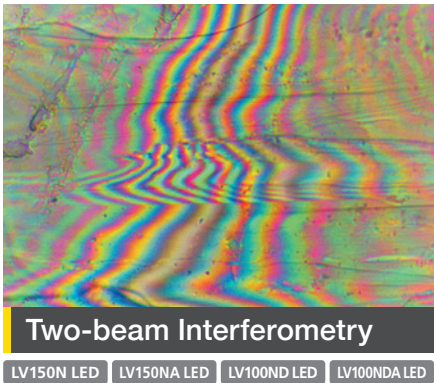
Substrate (solder)

The LV-N Series demonstrates superiority in the observation of samples with fluorescent properties, such as organic ELs or mounted substrates.



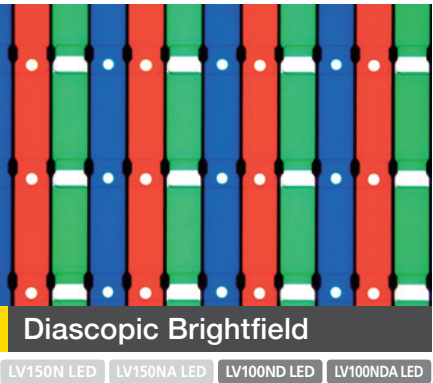
Minerals

The LV-N Series is effective in the observation of samples with birefringent properties, such as liquid crystals or plastics/glass containing distortion.



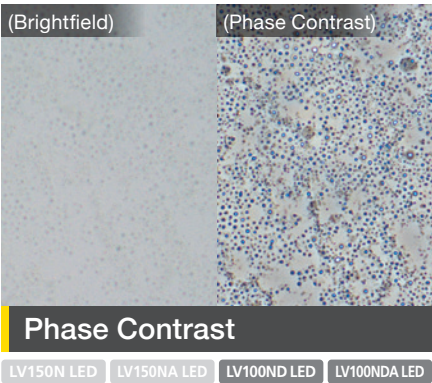
Mica

Michelson (TI) and Mirau (DI) reflection-type two-beam interferometry is possible with the LV-N Series. When used with micrometer eyepieces, minute level differences can be detected and measured without contact with the sample.



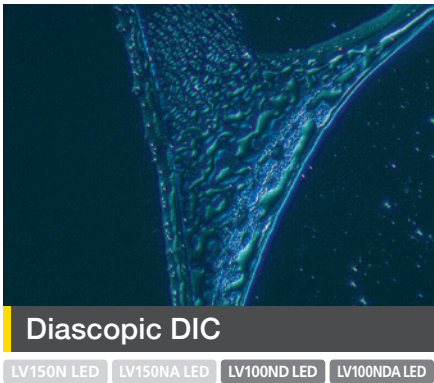
LCD (color filter)

The LV-N Series is effective in the observation of samples with transparency, such as optical components, FPDs, and slide glass samples. When used in conjunction with the C-SP Simple Polarizer and analyzers, transmitted simple polarized observation is possible.



Emulsion

Colorless, transparent samples can be made visible through bright/dark contrast and the use of diffraction and interference, two properties of light.



Nanoparticle (silver)

Colorless, transparent samples can be observed in three dimensions by using polarization to create interference between two beams of light.

Specifications

	LV150N LED	LV150NA LED
Base unit	Maximum sample height: 38 mm (when used with LV-NU5A Nosepiece and LV-S32 3x2 stage / LV-S64 6x4 stage) *73 mm when used with one column riser Coarse and fine adjustment knobs Left: coarse and fine adjustment / Right: fine adjustment, 40 mm stroke Coarse adjustment: 14 mm/turn (with torque adjustment, refocusing mechanism) Fine adjustment: 0.1 mm/turn (1 μm/graduation) Stage mounting hole intervals: 70 x 94 (fixed by 4-M4 screw)	
Nosepieces	C-N6, LV-NU5N, LV-NBD5N, LV-NU5IN	LV-NU5A, LV-NU5AC, LV-NU5AI
Episcopic Illuminators	LV-UEPI-N High color-rendering LED Lamphouse C-LL-I: 50,000 hours of life *1, Bright/darkfield switch and linked aperture stop (centerable), field diaphragm (centerable), accepts ø25 mm filter (LV-C-LCB, ND4, ND16), polarizer/analyzer; equipped with noise terminator LV-UEPI2 High color-rendering LED Lamphouse C-LL-I: 50,000 hours of life *1 Fluorescence LED light source D-LEDI (with light adjustment (PC controllable)) *option, field diaphragm (centerable), Bright/darkfield switch and linked aperture stop (centerable) automated optical element switching feature matched to brightfield, darkfield, and epi-fluorescence switch Accepts ø25 mm filter (LV-C-LCB, ND4, ND16), polarizer/analyzer, λ plate, excitation light balancer; equipped with noise terminator	
Eyepiece tubes	Binocular Tube C-TB (Inverted image, FOV: 22), Trinocular Tube LV-TI3 ESD (Erected image, FOV: 22/25), Tilting Trinocular Tube LV-TT3 (Erected image, FOV: 22/25 with centering and focus adjustment mechanism) Polarizing Binocular Tube P-TB2 (Inverted image, FOV: 22), Polarizing Trinocular Tube P-TT3 (Inverted image, FOV: 22)	
Stages	LV-S32 3x2 stage (Stroke: 75 x 50 mm with glass plate) ESD compatible, LV-SHA stage handle adapter attachable LV-S64 6x4 stage (Stroke: 150 x 100 mm with glass plate) ESD compatible, LV-SHA stage handle adapter attachable LV-S6 6x6 stage (Stroke: 150 x 150 mm) ESD compatible, LV-SHA stage handle adapter attachable	
Eyepieces	CFI eyepiece series	
Objective lenses	CFI ₆₀ -2/CFI ₆₀ objective lens series: combination depends on observation method	
ESD performance	1,000 to 10V, within 0.2 sec. (excluding certain accessories)	
Power consumption	1.2 A / 75 W	
Weight	Approx. 9 kg	Approx. 9 kg

	LV100ND LED	LV100NDA LED
Base unit	Maximum sample height: 38 mm (when used with LV-NU5N Nosepiece and LV-S32 3x2 stage / LV-S64 6x4 stage) Coarse and fine adjustment knobs Left: coarse and fine adjustment / Right: fine adjustment, 40 mm stroke Coarse adjustment: 14 mm/turn (with torque adjustment, refocusing mechanism) Fine adjustment: 0.1 mm/turn (1 μm/graduation)	Maximum sample height: 33 mm (when used with LV-NU5AI Nosepiece and LV-S32 3x2 stage / LV-S64 6x4 stage) Coarse and fine adjustment knobs Left: coarse and fine adjustment / Right: fine adjustment, 40 mm stroke Coarse adjustment: 14 mm/turn (with torque adjustment, refocusing mechanism) Fine adjustment: 0.1 mm/turn (1 μm/graduation)
Nosepieces	C-N6, LV-NU5N, LV-NBD5N, LV-NU5IN, D-ND6, P-N	LV-NU5A, LV-NU5AC, LV-NU5AI
Episcopic Illuminators	LV-UEPI-N High color-rendering LED Lamphouse C-LL-I: 50,000 hours of life *1 Bright/darkfield switch and linked aperture stop (centerable), field diaphragm (centerable), accepts ø 25 mm filter (LV-C-LCB), polarizer/analyzer; equipped with noise terminator LV-UEPI2 High color-rendering LED Lamphouse C-LL-I: 50,000 hours of life *1 Fluorescence LED light source D-LEDI (with light adjustment (PC controllable)) *option Bright/darkfield switch and linked aperture stop (centerable), field diaphragm (centerable), automated optical element switching feature matched to brightfield, darkfield, and epi-fluorescence switch Accepts ø 25 mm filter (LV-C-LCB, ND4, ND16), polarizer/analyzer, λ plate, excitation light balancer; equipped with noise terminator	LV-UEPI2A High color-rendering LED Lamphouse C-LL-I: 50,000 hours of life *1 Fluorescence LED light source D-LEDI (with light adjustment (PC controllable)) *option Motorized operation and control of illumination selector turret Motorized aperture stop linked to bright/darkfield selector (automatic optimization matched to objective lens), field diaphragm (centerable) Accepts ø 25 mm filter (LV-C-LCB, ND4, ND16), polarizer/analyzer, λ plate, excitation light balancer; equipped with noise terminator
Diascopic Illuminator	Built-in high color-rendering LED Lamphouse C-LL-I (50,000 hours of life) (Fly Eye optical system) *1 Internal aperture, field diaphragm, filter (45C-LCB); transmitted/reflected selector switch	
Eyepiece tubes	Binocular Tube C-TB (Inverted image, FOV: 22), Trinocular Tube LV-TI3 ESD (Erected image, FOV: 22/25), Tilting Trinocular Tube LV-TT3 (Erected image, FOV: 22/25 with centering and focus adjustment mechanism) Polarizing Binocular Tube P-TB2 (Inverted image, FOV: 22), Polarizing Trinocular Tube P-TT3 (Inverted image, FOV: 22)	
Stages	LV-S32 3x2 stage (Stroke: 75 x 50 mm with glass plate, LV-S32SGH slide glass holder / LV-SHA stage handle adapter attachable) LV-S64 6x4 stage (Stroke: 150 x 100 mm with glass plate, LV-SHA stage handle adapter attachable) LV-SRP P revolving stage NIU-CSRR2 Ni-U right handle rotatable ceramic stage (Stroke: 78 x 54 mm) C-CSR2S right handle stage (Stroke: 78 x 54 mm / Used with stage adapter LV-SAD)	
Condensers	LWD achromat condenser (brightfield), LV-CUD U condenser dry (phase contrast, diascopic DIC, darkfield) Achromat 2x-100x slide condenser (brightfield), DF dry condenser (darkfield), and others	
Eyepieces	CFI eyepiece series	
Objective lenses	CFI ₆₀ -2/CFI ₆₀ objective lens series: combination depends on observation method	
ESD performance	1,000 to 10V, within 0.2 sec. (excluding certain accessories)	
Power consumption	0.7 A / 58 W *2	
Weight	Approx. 9 kg	Approx. 10 kg

*1 Estimated value based on Nikon regulations *2 Reference value based on Nikon regulations

Lens Specifications

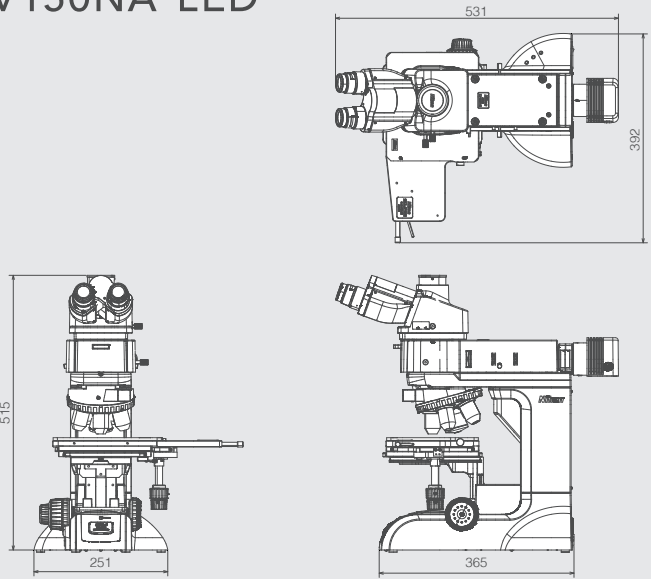
	Type	Model	Magnification	Product Code No.	NA	Working Distance (mm)
CFI60-2	Brightfield	T Plan EPI Plan (Achromat)	1x	MUE12010	0.03	3.8
			2.5x	MUE12030	0.075	6.5
		TU Plan Fluor EPI Universal Plan Fluor (Semi-apochromat)	5x	MUE12050	0.15	23.5
			10x	MUE12100	0.3	17.5
			20x	MUE12200	0.45	4.5
			50x	MUE12500	0.8	1.0
			100x	MUE12900	0.9	1.0
	Polarizing	TU Plan Apo EPI Universal Plan Apo (Apochromat) 	50x	MUC11500	0.8	2.0
			100x	MUC11900	0.9	2.0
			150x	MUC11150	0.9	1.5
			5x	MUE13050	0.15	23.5
			10x	MUE13100	0.3	17.5
	Brightfield Long Working Distance	TU Plan EPI ELWD Long Working Distance Universal Plan (Semi-apochromat) 	20x	MUE21200	0.4	19.0
			50x	MUE21500	0.6	11.0
			100x	MUE21900	0.8	4.5
	Brightfield Super-long Working Distance	T Plan EPI SLWD Super-long Working Distance Plan (Semi-apochromat) 	10x	MUE31100	0.2	37.0
			20x	MUE31200	0.3	30.0
			50x	MUE31500	0.4	22.0
			100x	MUE31900	0.6	10.0
	Brightfield/Darkfield	TU Plan Fluor BD Universal Plan Fluor (Semi-apochromat)	5x	MUE42050	0.15	18.0
			10x	MUE42100	0.3	15.0
			20x	MUE42200	0.45	4.5
			50x	MUE42500	0.8	1.0
			100x	MUE42900	0.9	1.0
	Brightfield/Darkfield Long Working Distance	TU Plan Apo BD Universal Plan Apo (Apochromat) 	50x	MUC41500	0.8	2.0
			100x	MUC41900	0.9	2.0
			150x	MUC41150	0.9	1.5
			20x	MUE61200	0.4	19.0
			50x	MUE61500	0.6	11.0
			100x	MUE61900	0.8	4.5

-  : Phase Fresnel lens (diffraction optical element) type
- A circular polarizing plate and depolarizer are built into T Plan EPI 1x/2.5x. (Circular polarizing plate can be attached/detached.)

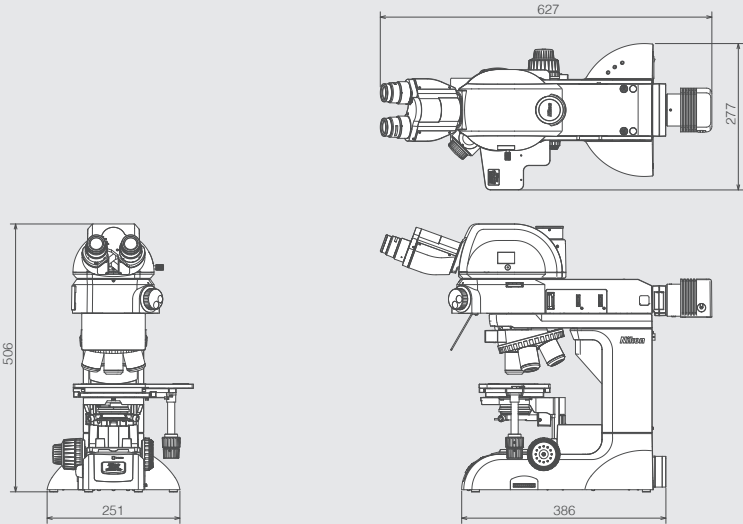
	Type	Model	Magnification	Product Code No.	NA	Working Distance (mm)
CFI60	Brightfield With Correction Mechanism	L Plan EPI CR For Inspecting LCDs Plan	20x	MUE35200	0.45	10.9 - 10.0
			50x	MUE35500	0.7	3.9 - 3.0
			100x	MUE35900	0.85	1.2 - 0.85
			100x	MUE35910	0.85	1.3 - 0.95
	Brightfield	L Plan EPI Plan (Achromat)	40x	MUE00400	0.65	1.0
	Brightfield	LE Plan EPI (Achromat)	5x	MUD00050	0.1	31.0
			10x	MUD00100	0.25	13.0
			20x	MUD00200	0.4	3.6
			50x	MUD00500	0.75	0.5
			100x	MUD00900	0.9	0.31

Dimensions (Unit: mm)

LV150N LED / LV150NA LED

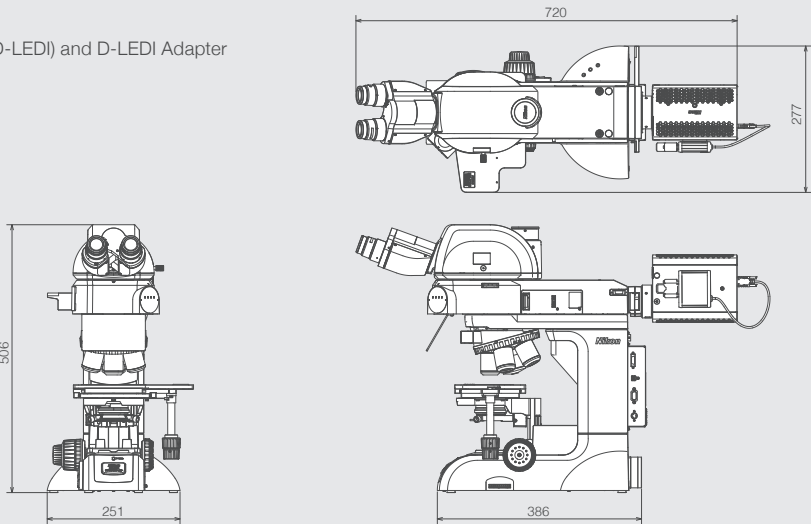


LV100ND LED



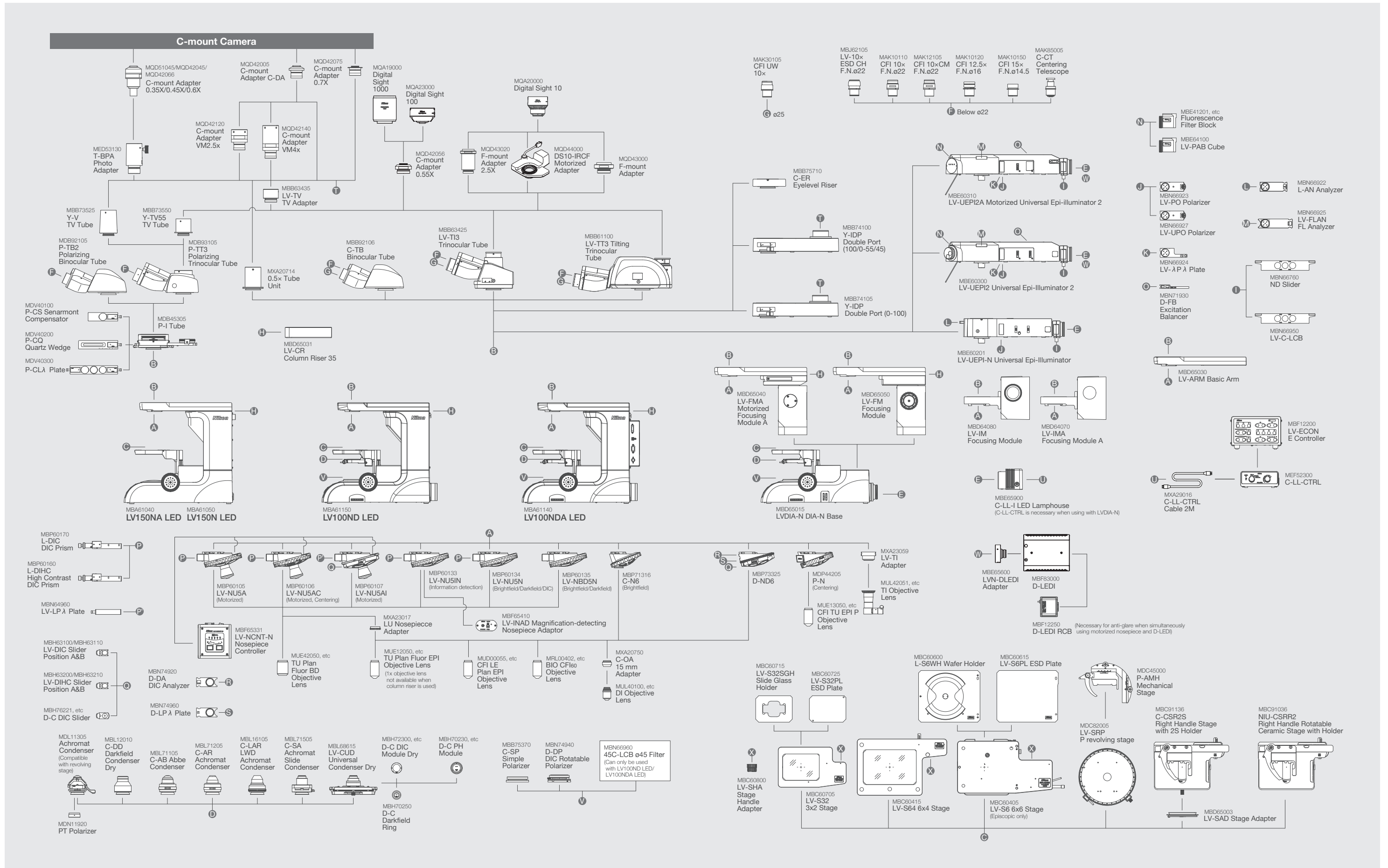
LV100NDA LED

*Using fluorescence LED light source (D-LEDI) and D-LEDI Adapter for fluorescence observation



System Diagram

for LV150N LED/LV150NA LED/LV100ND LED/LV100NDA LED



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WARNING

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



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