

Nikon



ECLIPSE

E600POL
E400POL

CFI60

CFI60 Infinity Optics Redefine Polarizing Microscopy to Provide Greater Sharpness and Simpler Operation

E600POL E400POL

Users demand many things from a polarizing microscope: high performance, ease of use, extreme rigidity, and durability. Historically, Nikon's polarizing microscopes have always been respected for their excellent image sharpness and functionality. Now, Nikon has gone back to the drawing boards to redesign these microscopes as the Eclipse series, employing cutting-edge CFI60 infinity optics to make them better than ever.

These superb microscopes offer both advanced optical performance and user-friendly operation, two qualities you have come to expect and depend on from Nikon.

Nikon's Eclipse-series polarizing microscopes.

Instruments that let you explore new horizons in your research.



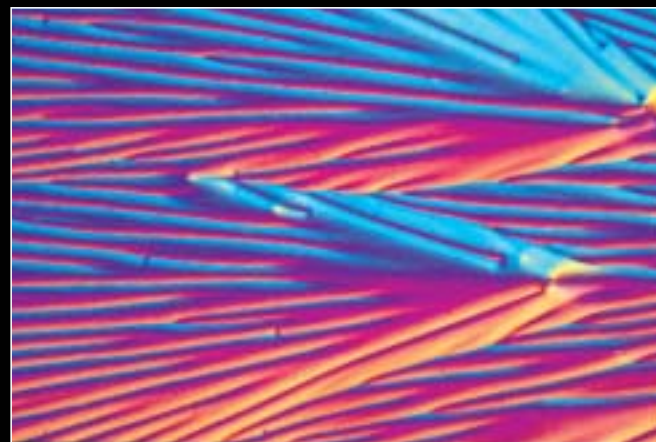
E400POL
Diascopic illumination type

E600POL
Diascopic illumination type



E400POL
Diascopic/episcopic illumination type

E600POL
Diascopic/episcopic illumination type



Ascorbic acid / 10x



Sodium nitrite / 4x



Nylon (diascopic) / 5x

Research-Grade Analytical Polarizing Microscope that Utilizes the Excellence of CFI60 Optics

High numerical apertures, long working distances, plus easy upgrading for the most demanding advanced research techniques. These are the features provided by the Eclipse E600POL incorporating Nikon's high performance CFI60 infinity optical system. Moreover, the E600POL inherits all the user-friendly features of the Eclipse E600, to offer operational ease never before available in a polarizing microscope. The E600POL utilizes a 12-volt, 100-watt ultra stable Koehler illumination light source delivering the highest quality microscopic illumination possible. Rock-solid rigidity is also a benchmark of this microscope, thanks to the robust construction of both the base and arm sections.

CFI60



Reversed Centering Quintuple Nosepiece

This new centering nosepiece can accommodate up to five strain-free polarizing CFI60 objectives ranging from 4x to 100x. It also incorporates a DIN slot (E600POL only) for easy insertion and removal of special-purpose compensators.



High-Precision Rotating Stage

The stage is an integral part of the microscope body for greater stability and enhanced accuracy. The stage incorporates a high precision ball bearing movement with a very accurate and repeatable 45° click-stop feature. (E600POL only) The outstanding performance of this stage will be apparent when using the high N.A., long working distance P Achromat polarizing objectives.



CFI P Achromat



Intermediate Tube

The intermediate tube installs between the microscope body and the eyepiece tube allowing videomicrography and photomicrography while performing orthoscopic or conoscopic microscopy. The slider-type analyzer has a large rotation control for easy adjustment and accurate reading while rotatable through 360°. The Bertrand lens, located in the intermediate tube, is focusable and centerable for the best conoscopic observations/CCTV/photography.

Polarizer

The polarizer features click-stops (E600POL only), and because of its ample size, is easy to rotate and read the analytical degree markings.

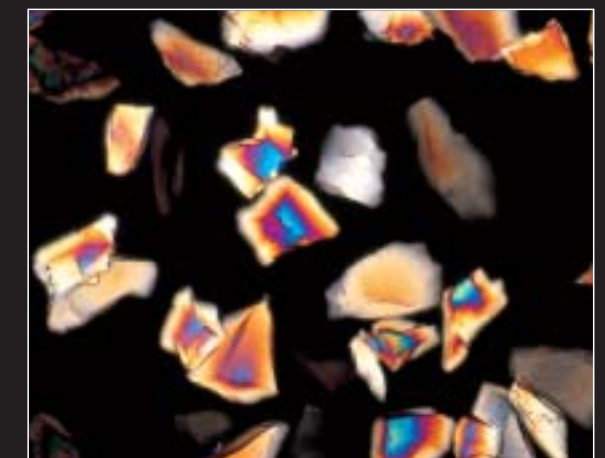
A CFI60-Based Polarizing Microscope that is Compact and Easy to Use

Employing Nikon's exclusive CFI60 infinity optical system, the E400POL boasts high N.A.'s and long working distances. In addition to its superior basic performance, this polarizing microscope has a compact size with ergonomically placed controls for hours of strain-free operation. The E400POL features a 6-volt, 30-watt halogen illuminator for economical and trouble-free illumination. The Eclipse E400POL is ideal for routine observations and inspections.

CFI60



Conoscopic image of mica / CFI P Achromat 40x



Quartz / CFI P Achromat 10x

ECLIPSE E600POL E400POL

[Diascopic/Episcopic Illumination Type]

Both diascopic and episcopic polarizing observations are possible by mounting an episcopic polarizing attachment on these microscopes. The improved illuminator delivers greater brightness, capturing images of low-reflectance opaque specimens with excellent sharpness and ample brightness.

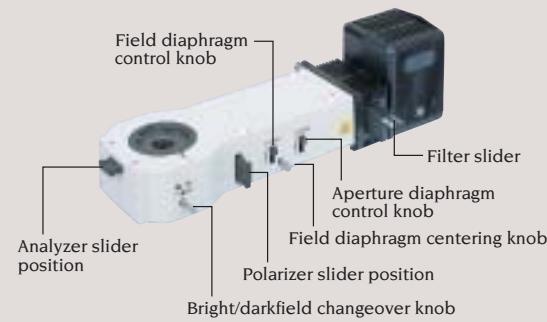


L-UEPI Universal Epi-illuminator ESD

Incorporating a 12V-100W lamphouse, this new epi-illuminator provides more than sufficient brightness for reflected light polarizing or DIC applications.



CFI LU Plan Epi P



Accessories



Photomicrographic Equipment

The Nikon FX-III series features a Direct Projection System. A major operational breakthrough, this system supplies 100% of the light to the film plane.

U-III: Auto exposure; 0.1% spot, 1% spot and 35% average metering

H-III: Auto exposure; 1% spot and 35% average metering

P-III: Manual exposure

For further information, see the Nikon FX-III Series catalog.



CCD Camera Adapters

- Use a 0.35x CCD camera adapter for a 1/3-inch CCD camera, 0.45x for 1/2-inch, and 0.6x for 2/3-inch.
- 0.9 to 2.25x zoom CCD camera adapters are also available.



Attachable Mechanical Stage

To improve efficiency in your microscopy, an attachable mechanical stage can be mounted on the rotating stage. Cross travel: 35 x 25 mm (1.4 x 1.0 in.) Min. increment: 0.1mm on the vernier



Senarmont Compensator

Besides a standard 1/4λ plate and a 546nm (1λ) tint plate (1st order red plate), a Senarmont compensator is also available as an option, for retardation measurements from 0 to 1λ.



Quartz Wedge Compensator

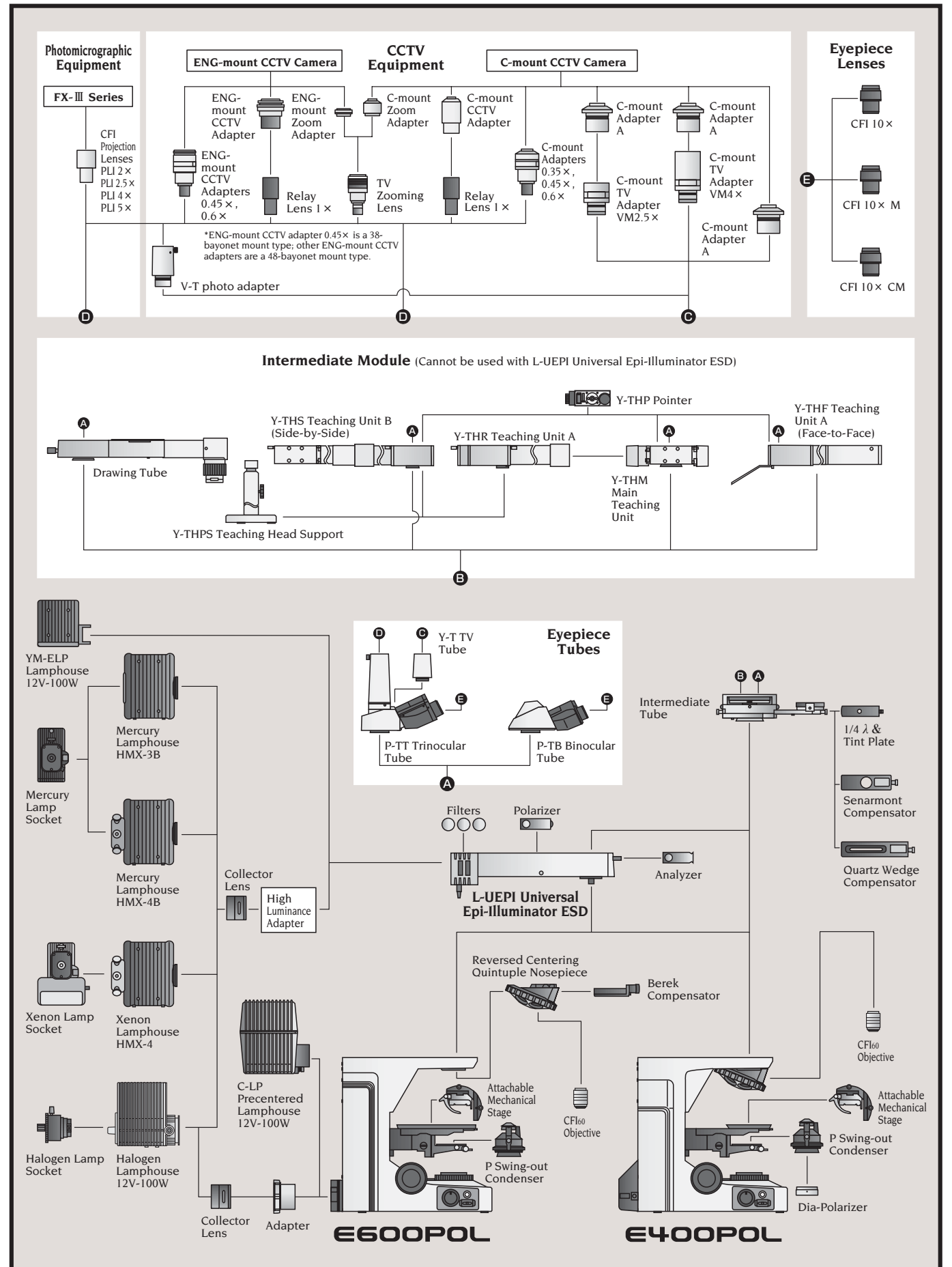
Inserted into the intermediate tube, this compensator permits retardation measurements from 1 to 6 orders.



Berek Compensator (E600POL only)

Inserted into the nosepiece slot, this compensator permits retardation measurements from 0 to 1800 nm.

System Diagram

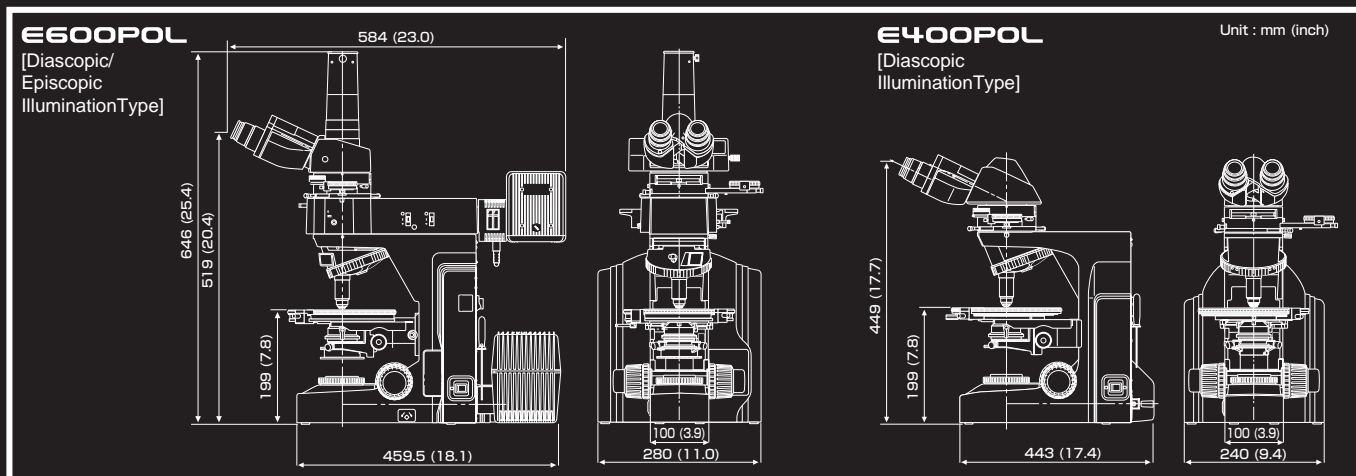


Specifications

	E600POL	E400POL	
Main body	Optical system	CFI60 infinity optical system	
	Appearance	T-shaped, double-wing design	
	Illumination	12V-100W long-life, halogen lamp; Built-in 12V-100W DC transformer; With diascopic/episcopic illumination changeover switch (located on back of right-side wing)	6V-30W halogen lamp transformer built in
	Focusing	Coaxial coarse/fine focus knob; Fine: 0.1mm per rotation; Coarse: 12mm (0.5in.) per rotation; Minimum reading 1 micron on left-side knob	
Eyeiece	10 × (F.O.V. 22mm/0.9in.), CM type with 90° crosshair and micrometer scale		
Eyeiece tube	P-TT Trinocular Tube for polarizing microscopy; P-TB Binocular Tube for polarizing microscopy		
Intermediate tube	Built-in focusable Bertrand lens removable from optical path; Conoscopic/Orthoscopic observations switchable; Built-in analyzer; With plate/compensator slot		
Analyzer	360° rotary dial; Minimum reading angle 0.1°		
Nosepiece	Detachable reversed centering quintuple nosepiece; With DIN slot	Reversed centering quintuple; Fixed	
Stage	Top-grade dedicated circular graduated stage Rotatable 360° horizontally; can be fixed at a specific position Graduated 360° (1° increments) Click stops each 45° Attachable mechanical stage available; 35 × 25 mm (1.4 × 1.0 in.) travel, vernier 0.1mm.	Ball bearing rotary stage Attachable mechanical stage available; 35 × 25 mm (1.4 × 1.0 in.) travel, vernier 0.1mm.	
Condenser	Dedicated strain-free swing-out type; P Achromat N.A. 0.9		
Polarizer	Fixed to the bottom of the condenser holder; With scale	No scale	
Objectives	CFI P Achromat 4 ×, 10 ×, 20 ×, 40 ×, 100 × H; CFI LU Plan Epi P 5X, 10X, 20X, 50X, 100X		
Episcopic illuminator	L-UEPI Universal Epi-illuminator ESD*		
Compensators	Standard 1/4 λ & tint plate, quartz wedge or Senarmont compensator can be inserted into intermediate tube slot		
Weight	Approx. 17kg/37.5 lb. (standard set)	Approx. 12kg/26.5 lb. (standard set)	

* With the E600POL, illumination power to the epi-illuminator is supplied by the transformer built into the microscope main body.
With the E400POL, an external power supply is necessary.

Dimensions



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

Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer. March 2001.

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