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.
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.

Reversed Centering Quintuple Nosepiece
This new centering nosepiece can accommodate up to five strain-free polarizing CFI60 objectives ranging from 4 x to 100 x. 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.

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.

Conoscopic image of mica / CFI P Achromat 40 x
Quartz / CFI P Achromat 10 x
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.

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**Accessories**

**CCD Camera Adapters**
- Low: 0.25x CFI camera adapter for a 1/2-inch CFI camera lens, 8.6 x for 1/3-inch, and 16 x for 2/3-inch.
- High: 0.25x x zoom CFI camera adapters are also available.

**Attachable Mechanical Stage**
To improve efficiency in your microscope, an attachable mechanical stage can be mounted on the nosepiece. Cross-travel: 75 x 25 mm (1.4 x 1.0 in.) Min. increment: 0.1 mm on the vernier.

**Quartz Wedge Compensator**
Inserted into the nosepiece slot, this compensator permits retardation measurements from 1 to 6 orders.

**Senarmont Compensator**
Beside a standard 1/4-plate and a 546nm (1st order red plate), a quartz wedge compensator is also available as an option, for retardation measurements from 0 to 3.5.

**Berek Compensator**
(E600POL only) Inserted into the nosepiece slot, this compensator permits retardation measurements from 0 to 1800 nm.

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**E400POL**
Diascopic/episcopic illumination type

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**E600POL**
Diascopic/episcopic illumination type

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**Photomicrographic Equipment**

**Photographic 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. A major operational breakthrough, this system supplies 100% of the light to the film plane. For further information, see the Nikon FX-III Series catalog.

**System Diagram**

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**System Diagram**

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**System Diagram**
### Specifications

<table>
<thead>
<tr>
<th>E600POL</th>
<th>E400POL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main body</strong></td>
<td></td>
</tr>
<tr>
<td>Optical system</td>
<td>CF I infinity optical system</td>
</tr>
<tr>
<td>Appearance</td>
<td>T-shaped, double-wing design</td>
</tr>
<tr>
<td>Illumination</td>
<td>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)</td>
</tr>
<tr>
<td><strong>Eye piece</strong></td>
<td></td>
</tr>
<tr>
<td>Focus knob</td>
<td>Coaxial coarse/fine focus knob, Fine: 0.1mm per rotation, Coarse: 12mm (0.5in.) per rotation; Minimum reading 1 micron on left-side knob</td>
</tr>
<tr>
<td><strong>Eye piece tube</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P-T T binocular tube for polarizing microscopy; P-TB binocular tube for polarizing microscopy</td>
</tr>
<tr>
<td><strong>Intermediate tube</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Built-in focusable Bertrand lens removable from optical path, Conoscopic/Orthoscopic observations switchable, Built-in analyzer, With plate/compensator slot</td>
</tr>
<tr>
<td><strong>Analyzer</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>360° rotary dial; Minimum reading angle 0.1°</td>
</tr>
<tr>
<td><strong>Nose piece</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Detachable reversed centering quintuple nosepiece; With DIN slot</td>
</tr>
<tr>
<td><strong>Stage</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>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 x 25 mm (1.4 x 1.0 in.) travel, vernier 0.1mm</td>
</tr>
<tr>
<td>Condenser</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dedicated strain-free swing-out type; P Achromat N.A. 0.9</td>
</tr>
<tr>
<td><strong>Polarizer</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fixed to the bottom of the condenser holder; With scale</td>
</tr>
<tr>
<td><strong>Objectives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CFI P Achromat 4 x , 10 x , 20 x , 40 x , 100 x H; CFI LU Plan Epi P 5X, 10X, 20X, 50X, 100X</td>
</tr>
<tr>
<td><strong>Episcopic illuminator</strong></td>
<td>L-UEPI Universal Epi-illuminator ESD*</td>
</tr>
<tr>
<td><strong>Compensators</strong></td>
<td>Standard 1/4 λ / 2 λ &amp; tint plate, quartz wedge or Senarmont compensator can be inserted into intermediate tube slot</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>Approx. 17kg/37.5 lb. (standard set)</td>
</tr>
</tbody>
</table>

* 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

![Dimensions Diagram](Image)

**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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NIKON CORPORATION
9-16, Ohi 3-chome, Shinagawa-ku, Tokyo 140-8505, Japan
Phone: +81-3-3773-8121  Fax: +81-3-3773-9115
http://www.nikon.com/
http://www.nikon.co.jp/inst/

NIKON CANADA INC.
CANADA  Phone: +1-866-625-9910  Fax: +1-866-625-5103

NIKON FRANCE S.A.
FRANCE  Phone: +33-1-45-16-45-16  Fax: +33-1-45-16-03-33

NIKON GmbH
GERMANY  Phone: +49-211-9414-0  Fax: +49-211-9414-0032

NIKON INSTRUMENTS S.p.A.
ITALY  Phone: +39-55-3009601  Fax: +39-55-3009883

NIKON SINGAPORE PTE LTD
SINGAPORE  Phone: +65-5593618  Fax: +65-5593668

NIKON MALAYSIA SDN. BHD.
MALAYSIA  Phone: +60-3-78763887  Fax: +60-3-78763387

NIKON AG
SWITZERLAND  Phone: +41-1-910-37-41  Fax: +41-1-910-34-77

NIKON UK LTD.
UNITED KINGDOM  Phone: +44-161-547-4445  Fax: +44-161-547-4584

NIKON EUROPE B.V.
P.O. Box 222, 1170 AE Badhoevedorp, The Netherlands
Phone: +31-20-44-96-222  Fax: +31-20-44-96-298

NIKON INSTRUMENTS INC.
1300 Walt Whitman Road, Melville, N.Y. 11747-3064, U.S.A.
Phone: +1-631-547-8500  Fax: +1-631-547-0306

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