



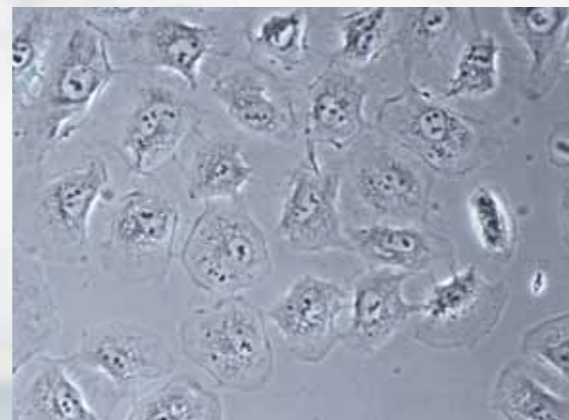
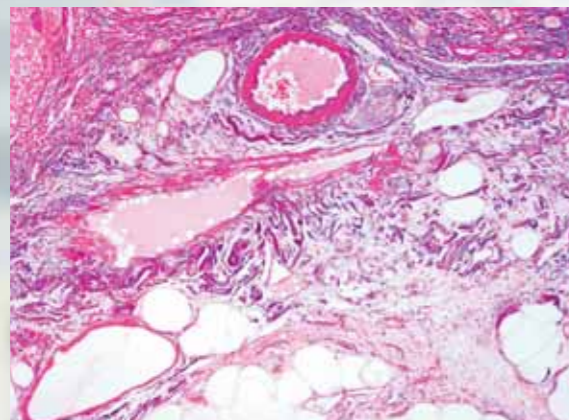
Biological Microscope  
**ECLIPSE**  
**E100**

# High-quality images with newly developed bright LED illumination and time-proven CFI optical system



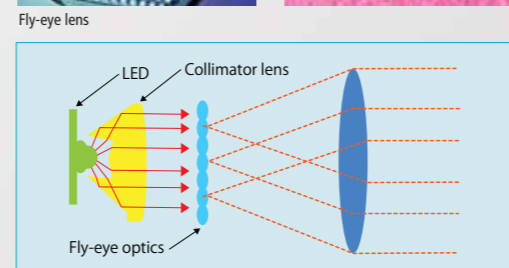
Features newly developed high-intensity LED illumination, providing uniform brightness in the entire field of view. A halogen illumination model is also available. Nikon's infinity corrected optics, designed especially for the ECLIPSE E100 microscope, use state-of-the-art technology to produce outstanding performance. Nikon's CFI\* optics achieve flat, sharp images that minimize distortion to the maximum. Colorless transparent specimens can be observed with phase contrast observation. Featuring a simple and easy-to-use design for beginners, strong rigidity to ensure high accuracy and a long life, and an easy-to-store structure, the ECLIPSE E100 is the perfect choice for a variety of purposes, including educational and routine laboratory research.

\*Chromatic-aberration Free Infinity



## High-intensity LED Eco-illumination

The newly developed Eco-illumination provides enough brightness for phase contrast observation. With a fly-eye lens in the illuminator, uniform brightness is provided in the entire field of view. Using environmentally friendly long-life LEDs, Eco-illumination boasts a long lifetime of 60,000 hours and reduces the need for frequent lamp replacement. A halogen illumination model is also available.

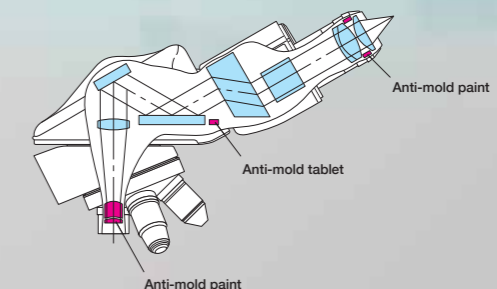


## Objective lenses for flat images

Nikon has developed the CFI BE Plan objectives, which feature superior image flatness, exclusively for the E100. Chromatic aberration and field curvature are corrected over the entire field of view. Images are clear and bright at every magnification. The E100 provides first class optical quality at a modest price.

## Anti-mold design

Anti-mold paint and an anti-mold tablet are used in the objective lenses, eyepiece lenses and eyepiece tubes to prevent mold forming in high-humidity environments.





# Ergonomic design

Compact, lightweight body with enhanced operability—providing ease of use



## Binocular and trinocular eyepiece tubes available

The ECLIPSE E100 employs a Siedentopf-type eyepiece tube that provides a constant and accurate eyepiece tube length. Both binocular and trinocular eyepiece tubes are available. A digital camera can be attached to the trinocular eyepiece tube.\*

\*See "Eyepiece tube" on page 6.



## Observation with comfort

The eyepiece tube is inclined at 30°, allowing comfortable viewing in a natural posture. By simply swinging the front part of the eyepiece tube, the user can adjust the eyepoint height by up to 34 mm to find the most comfortable height for observation. In addition, the interpupillary distance adjustment and the diopter adjustment ring are designed to accommodate a wide range of operators.

## Smooth rotation quadruple nosepiece

The high-quality revolving nosepiece has a superior internal detent click-stop mechanism. A knurled elastic covered grip around the base of the nosepiece makes the nosepiece easy to rotate and eliminates the need to touch the objectives.

## Double-plate mechanical stage

The built-in stage has a double-plate mechanism with an XY dual travel control. The large, flat stage surface facilitates easy specimen handling. Because the height of the X-axis guide rail is level with the stage surface and the stage surface is flat and smooth, glass slides move easily over the surface. A spring-loaded slide holder is included.



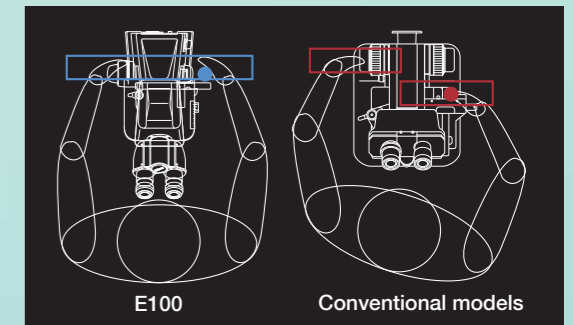
## Condenser with position guide markings

The condenser comes with an aperture diaphragm with position guide markings for the 4x, 10x, 40x, 60x and 100x objectives to make operations quick and easy, ensuring perfect specimen images.



## Coaxial coarse/fine focus knob

The coaxial coarse/fine focus knob is comfortably located at desk-height level. The focus knob and the stage handle are ergonomically designed and are located equidistant from the operator, meaning they can both be easily adjusted from a normal sitting position. In addition, the torque of the coarse focus knob can be adjusted.



Comparison of the positions of the stage handle and focus control knob

## Easy halogen lamp replacement

The halogen illumination model features a powerful 6V20W halogen lamp that is adjustable up to 6 V for convenient illumination control. Replacing the lamp is easy and trouble-free. Simply detach the field lens unit and replace.



## Convenient for transportation and storage

The microscope body is compact and lightweight. A cord hanger and storage case are available to make transporting and storing the E100 easier.



## Accessories corresponding to a wide variety of applications

### Phase contrast attachment

Simple phase contrast observation at 10x and 40x is possible with a single phase annulus slider. The aperture diaphragm automatically opens when the slider is inserted into the condenser. A phase contrast 100x slider and darkfield ring stop for 10x, 20x and 40x objectives are available as options.



### Mirror unit

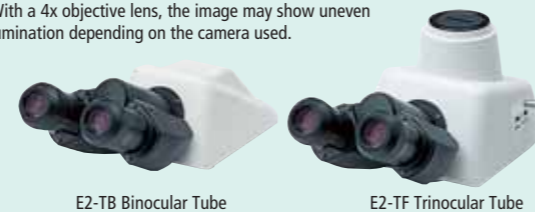
A mirror unit is available for observation where there is no access to a power source. Removal of the FL (field lens) unit and insertion of the mirror unit in its place is easy.



### Eyepiece tube

Siedentopf-type binocular and trinocular eyepiece tubes are available. A digital camera can be attached to the trinocular eyepiece tube.\*

\*With a 4x objective lens, the image may show uneven illumination depending on the camera used.



### Condenser

An Abbe condenser for brightfield observation and a phase condenser for phase contrast and darkfield observations are available.



### Cord hanger

The power cord can be simply wound up when not in use.



### Storage case

Available in both wood and aluminum, the dedicated storage case is handy for transporting and storing the E100.



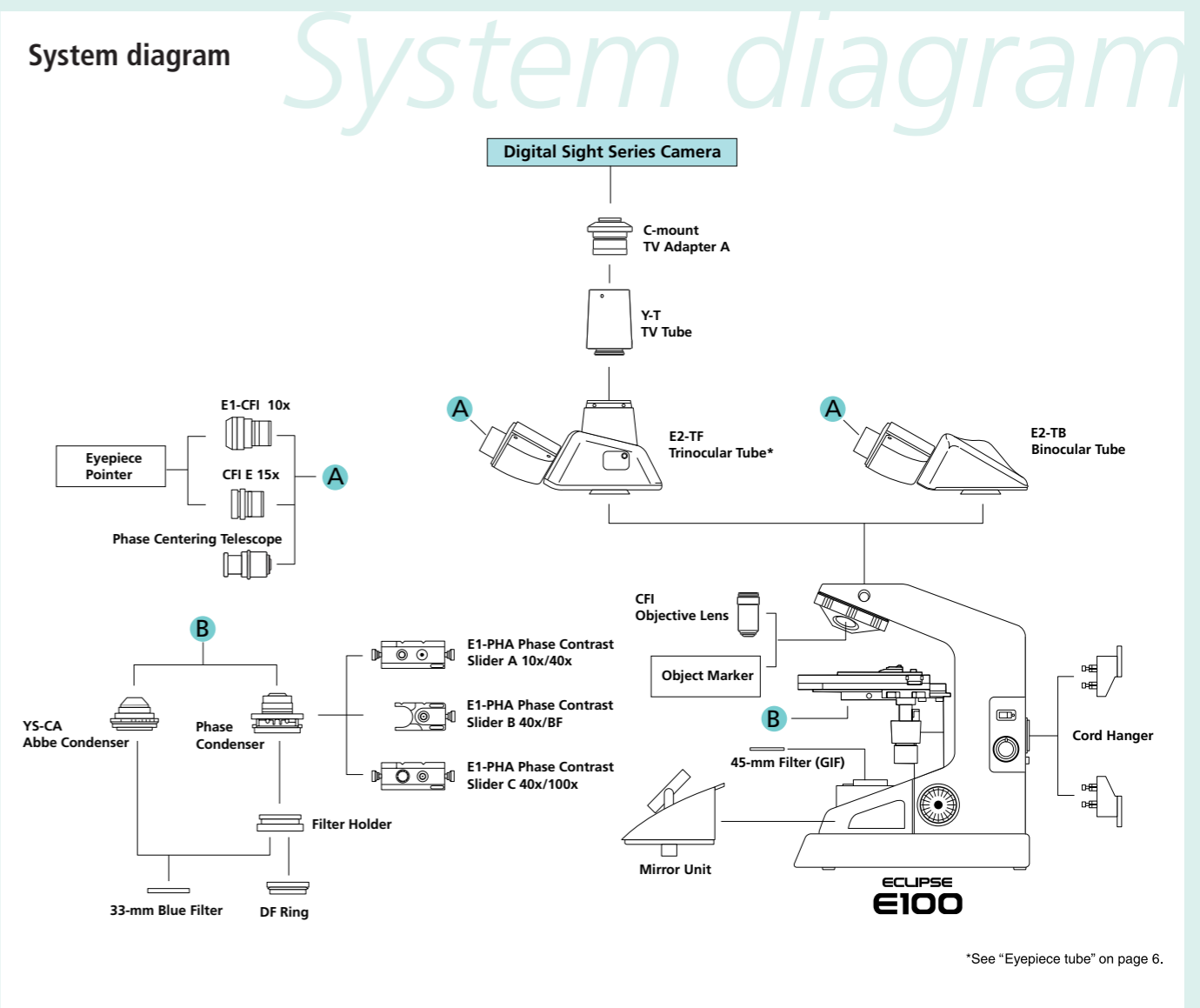
### Digital Sight series camera system

When the trinocular eyepiece tube is used, a digital camera can be attached.\* The DS-Vi1-L3, a color camera head combined with a standalone control unit, enables focusing and viewing of images on the built-in 8.4-inch LCD monitor without the need for a PC. The optimum imaging conditions that match the observation technique in use can be automatically set by selecting the appropriate "scene mode" icon on the touch panel. Storing optimal images is easy.

\*See "Eyepiece tube" on page 6.



### System diagram



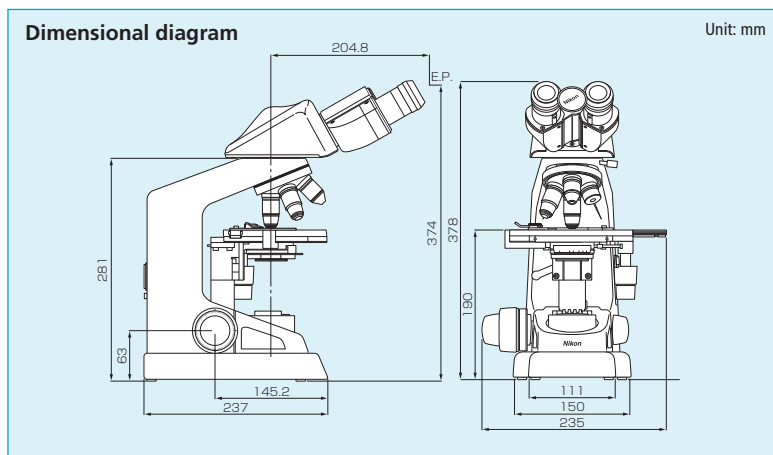
\*See "Eyepiece tube" on page 6.



# Specifications

<b>Main body</b>	
<b>Optical system</b>	CFI Infinity Optical System
<b>Illumination</b>	High luminescent white LED illuminator (Eco-illumination) 6V20W halogen lamp, Compliant multi-voltage (100 V-240 V)
<b>Eyepieces (F.O.V.)</b>	<ul style="list-style-type: none"> <li>• E1-CFI 10x (18 mm)</li> <li>• CFI E 15x (12 mm)</li> </ul>
<b>Focusing</b>	Coaxial coarse/fine focusing, Cross roller guide, Focusing stroke: 22 mm, Coarse: 37.7 mm/rotation, Fine: 0.2 mm/rotation, Coarse motion torque adjustable
<b>Tubes</b>	<ul style="list-style-type: none"> <li>• E2-TB Binocular Tube</li> <li>• E2-TF Trinocular Tube, Eyepiece/Port: 100/0, 0/100, 360° rotatable</li> </ul>
<b>Nosepieces</b>	Quadruple nosepiece (within main body), Revolving mechanism with multiple ball bearings, Elastic nosepiece grip-ring
<b>Stages</b>	Rectangular mechanical stage (within main body), with specimen holder, with vernier calibrations, Cross travel: 76 (X) x 40 (Y) mm
<b>Objectives (NA / W.D., mm)</b>	<ul style="list-style-type: none"> <li>• CFI BE Plan Achromat 4x (0.1 / 25)</li> <li>• CFI BE Plan Achromat 10x (0.25 / 6.7)</li> <li>• CFI BE Plan Achromat 20x (0.4 / 3.7)</li> <li>• CFI BE Plan Achromat 40x (0.65 / 0.6)</li> <li>• CFI BE Plan Achromat 60x (0.8 / 0.24)</li> <li>• CFI BE Plan Achromat 100x (1.25 / 0.14)</li> <li>• CFI BE Plan Achromat DL10x (0.25 / 6.7)</li> <li>• CFI BE Plan Achromat DL40x (0.65 / 0.6)</li> <li>• CFI BE Plan Achromat DL100x (1.25 / 0.14)</li> </ul>
<b>Condensers</b>	<ul style="list-style-type: none"> <li>• YS-CA Abbe Condenser N.A. 1.25, Aperture diaphragm with position guide marking for respective objectives, 33-mm Blue Filter attachable</li> <li>• Phase Condenser (optional)</li> </ul>
<b>Observation methods*</b>	Brightfield, Darkfield, Phase contrast
<b>Optional accessories</b>	Phase contrast attachment, Object marker, Darkfield ring unit, Mirror unit, Cord hanger, Storage case
<b>Power consumption (max.)</b>	Normal value: 3 W (LED model), 33 W (halogen model)
<b>Weight (approx.)</b>	6 kg (Binocular standard set)

\*Observations except brightfield require optional accessories.



Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer. November 2011 ©2006-11 NIKON CORPORATION

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

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