

Epi-LED FL

**Motic®**

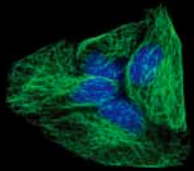
MORE THAN MICROSCOPY



# BA310 Epi-LED FL

New innovative  
Fluorescence  
microscope





# BA310 Epi-LED FL

## New innovative Fluorescence microscope

BA310 Epi-LED FL is designed specifically for the daily routine work in the demanding applications of education, pathology investigation, clinical and laboratory usage. Innovative LED as fluorescence illumination source, provide unexpected excellent image with easy and comfortable usage experience.

**BA310 Epi-LED FL is the genius with Motic intelligence.**

Unique optical system achieve superexcellent image in both fluorescence and brightfield application. Classic design combines esthetics with efficiency. Perfect mechanical design, not only answer for Ergonomics but also guarantee the long span stability. Attractive price-performance ratio is absolutely worthy investment.



# Epi-LED FL

## Fluorescence Illuminator



### **Rapid switching between fluorescence excitation and brightfield illumination**

Simple switching between “FL” and “BF” allows BA310 Epi-LED FL to employ brightfield transmitted light techniques or fluorescence reflected light techniques freely according to requirements.

This makes BA310 Epi-LED FL versatility for fluorescence application, such as tuberculosis inspection or brightfield application, such as conventional pathological investigation.

Trinocular photo-tubes can be obtained with 3 beam splitter options:

## Innovative LED-based fluorescence concept achieves convenience, reliability and cost-efficiency

Economical LED concept is a much better solution for fluorescence excitation than traditional mercury or metal-halide lamp.

With an incredibly long lifespan of 10,000 hours, LEDs offer unrivaled durability, friendly operation, and safety for applications.



- Instant on/off without warm-up or cool-down period.
- No need to re-align the light source.
- Convenient intensity adjustment.
- Scarcely any heat is generated, samples and users are protected.
- No Mercury safety and disposal.



### Simple Adjustable Fluorescence intensity.

Unlike traditional mercury illuminator, LED fluorescence intensity can be adjusted by rotating the intensity knob; easily choose the required intensity.

### Auto ON/OFF mode prolongs slide life and features confident level of diagnosis.

Under intelligent auto ON/OFF mode, the illumination light will turn off automatically when the user leaves the microscope, and turn on immediately once the user is back.

This function prevents the slides from long time exposure from fluorescence excitation and protects the slides.



## Unique Optical System

New design objectives bring better contrast.



Description	N.A.	WD (mm)
EC Plan 10x NCG	0.25	4.45
EC Plan 20x NCG	0.45	1
EC Plan 40x NCG	0.65	0.55
EC Plan 100x (Oil) NCG	1.25	0.24

## Powerful battery power supply allows long time operation under extreme environmental conditions

A battery package has been developed for more than 7 hours operation for fluorescence excitation or brightfield illumination in the field without main power supply.





## Concealed accessories for perfect fluorescence effect

- Special eyecups eliminate the need for a dark room.
- Light blocking slider protects user from the fluorescence excitation exposure and improve the image background
- Different position in the condenser meets for fluorescence and brightfield application.



## Considerate interlock feature protects users from emergent LED light leaking.

LED would not be switched on unless following conditions are satisfied:

A—— The lid of Epi-LED FL is closed

B—— Epi-LED FL is well aligned with BA310 main body.

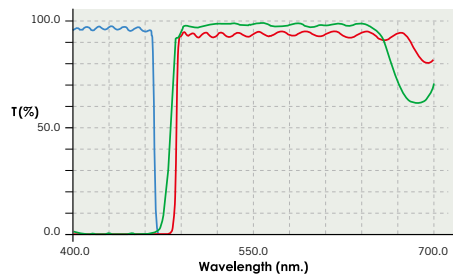
## Versatility with replaceable LED module and filter cube for different application\*

Modular and easy changeable LED module can be changed according to the staining dye requirement. BA310 Epi-LED FL is suited for not only TB inspection, but also other infectious disease such as malaria or sleeping sickness. Additionally, it is also suitable for simple laboratory and routine application for fluorescence excitation such as FITC, DAPI staining.



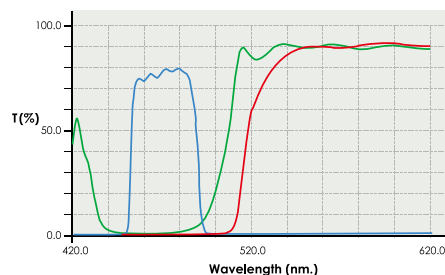
\* It is recommended that replacement of LED module should only be done by Motic authorized trained personnel.

Auramine O



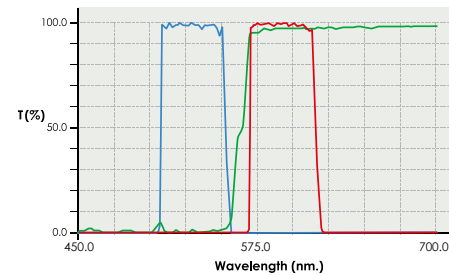
	Wavelength (nm)
Exciter	470Sp
Dichroic	480DRLP
Barrier	485LP

B Excitation MB-1



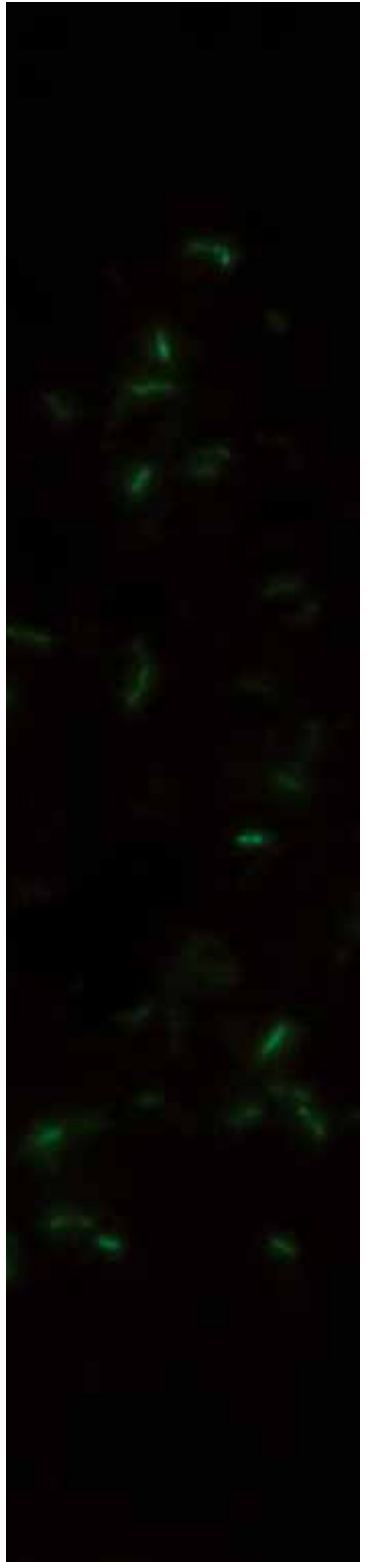
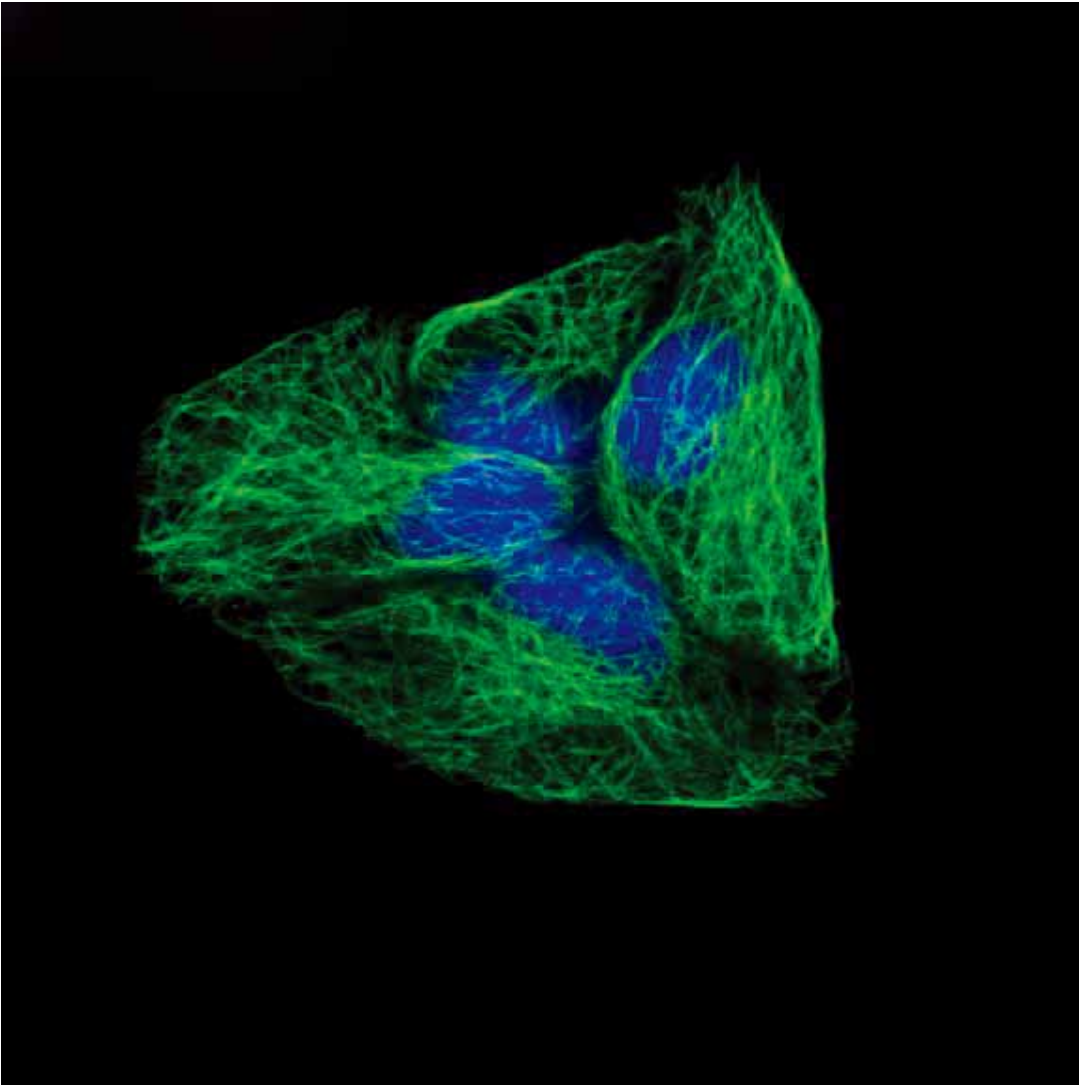
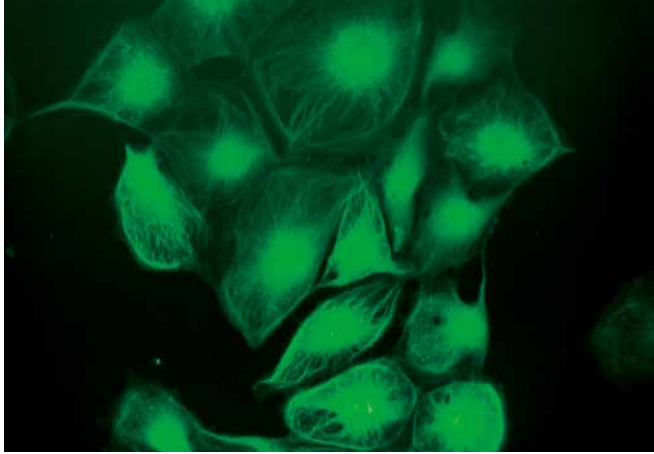
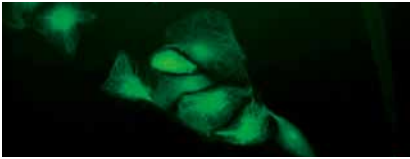
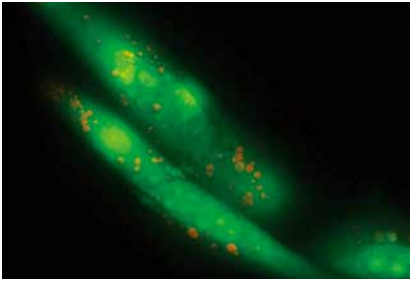
	Wavelength (nm)
Exciter	470/37
Dichroic	505LP
Barrier	515LP

G Excitation Cy3-4040C



	Wavelength (nm)
Exciter	531/40
Dichroic	562LP
Barrier	593/40

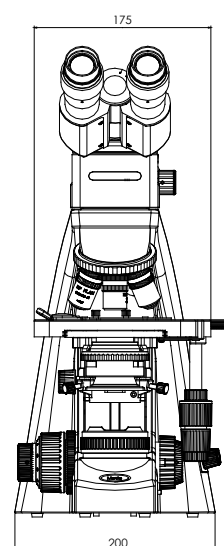
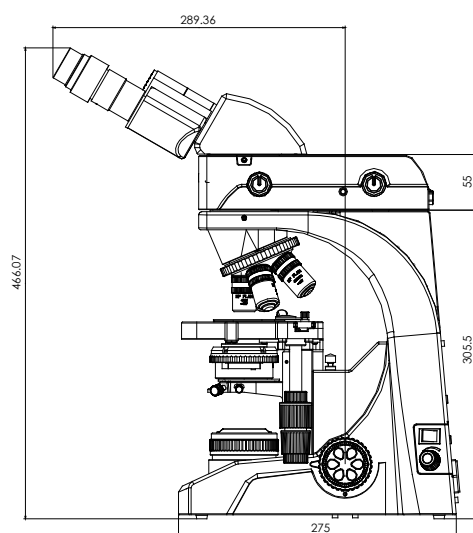




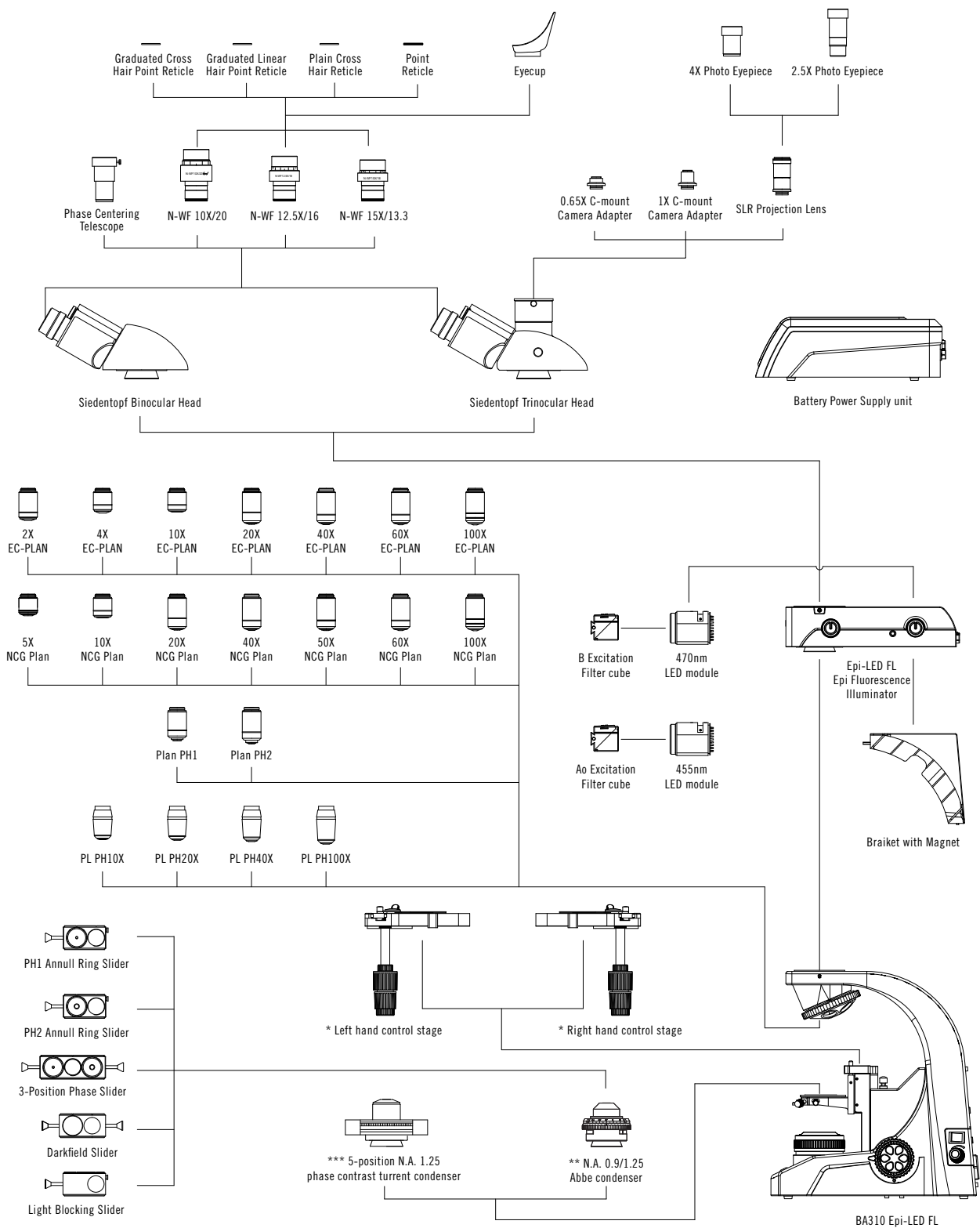
## BA310 Epi-LED FL complete package technical data:

Model	BA310 Epi-LED FL
Optical System	Color-Corrected Infinity Optical System
Observation Tube	Siedentopf 30° inclined binocular tube Siedentopf 30° inclined trinocular tube - light distribution 20/80 Siedentopf 30° inclined trinocular tube - light distribution 0/100
Viewing height	400mm
Interpupillary distance	55-75mm
Eyepieces	N-WF 10x/20mm, N-WF 12.5x/18mm, N-WF15x/16mm Special eyecups for fluorescence application
Nosepiece Reversed	Quintuple
Objectives	EC Plan 10x NCG, WD=4.45mm EC Plan 20x NCG, WD=1mm EC Plan 40x NCG, WD=0.55mm EC Plan 100x (Oil) NCG, WD=0.24mm
Stage	Size:175x140mm; movement range: 76x50mm; Coaxial movement, with right-hand or left-hand operation
Condenser	N.A. 0.9/1.25 Abbe condenser with slider slot; Focusable and centerable Slider Light blocking slider for Fluorescence application;
Focus	Brass gears; 25mm stroke; 2um minimum increments; Torque adjustment for coarse; Stage lock
Illumination	Built-in 3W LED Koehler illumination for transmitted light, reflected-light fluorescence, blue-light LED (455 nm) class 3B; intelligent Auto On/Off mode.
Area of stage	200mm x 275mm [WxD]

## BA310 Epi-LED FL Schematic Diagrams



## BA310 Epi-LED FL System Diagram



\* Stage -- To be ordered with stand

\*\* EF-N Plan phase objectives are to be used with phase slider.

\*\*\* Plan phase objectives are to be used with turret phase condensers.



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**Design Change :**

The manufacturer reserves the right to make changes in instrument design in accordance with scientific and mechanical progress, without notice and without obligation.



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