

## BA410 | Clinical&Lab Microscope Platform

# BA410 Clinical&Lab Microscope Platform

otic's premier BA410 is the flagship model of its BA Upright Compound Series, and exhibits Motic's advancing optical development approach in creating this high-end microscope.

Designed for multiple disciplines from University through Clinical, Laboratory, and Research applications, the BA410 offers true professional quality with a full complement of accessories, making it a valued addition for any biological application.

The BA410, when combined with any Moticam digital camera, also provides a powerful documentation tool for reporting or teaching assignments.







#### Microscope Stand

Through continuous professional usage, **ergonomic functionality** is increasing in importance in the design of a quality microscope stand. With this in mind, Motic's BA410 design was formulated around actual user parameters in order to **maximize comfort during prolonged usage times.** 

#### **Eyepiece Tubes**

Designed with a comfortable viewing angle of 30°, the standard BA410 eyepiece tubes (binocular and trinocular) offer a **22 mm Field of View** (FOV 22). The interpupillary distance can be adjusted in the range of 48-75mm.

Aside from the regular Binocular tube, Trinocular photo tubes can be obtained with **3 optical beam splitter options:** 

**Standard configuration:** 100:0/20:80

Recommended for Fluorescence: 100:0/0:100 Maximum flexibility: 100:0/0:100/20:80

#### **Eyepieces**

Motic's Infinity Corrected CCIS® Optical system with a field flatness up to 22mm and the high eye point principle of the BA410's eyepieces ensure true colour and sharp images, while minimizing eye fatigue and strain. As a standard, diopter adjustment is integrated to assist spectacle wearers and for reticule usage.

All standard eyepiece tubes now offer an extended "butterfly" swivel adjustment to increase the viewing height to accommodate individual user's positioning.





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#### **Ergonomic Tubes**

For prolonged viewing demands, the BA410 offers a complement of **ergonomic viewing head options**, with a FOV 22 and an interpupillary distance of 55-75mm. **Two different ergonomic tubes are available:** 

The Binocular Ergo tube has a variable viewing angle of  $4^{\circ}$ - $30^{\circ}$ .

**The Binocular Ergo-Plus tube** also offers an additional extension movement of 35mm.

#### **Objectives**

The Motic BA410 offers a **new class of EC-H optics** that sets the standard in price-performance in optical quality. Multilayer coated glass for **enhanced contrast** and **lead-free** manufacturing according to **RoHS standards** are significant features of this new class of Motic CCIS® objectives.

With excellent spherical aberration correction to significantly improve each lens' field flatness and better resolution, the EC-H optics offer superior colour reproduction and fidelity.

#### Illumination

The BA410 introduces a **new collector lens assembly** with a secure, screw-on holder for frequently used daylight or other image enhancement filters - an integral part of any illumination package. The complete inner light path of the microscope has been enlarged to minimize diffraction effects at high illumination apertures. The Illumination is a **6V/30W Halogen Koehler system.** A LED version is in preparation.



#### **Documentation**

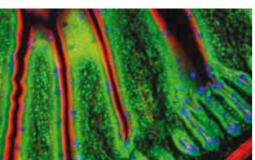
Today, accurate documentation is becoming an increasingly important part in most natural science applications.

The combination of the BA410 with a member of the **Moticam** series of digital cameras delivers excellent live images, which can easily be stored for future usage. All Motic cameras come equipped with software to transform the BA410 into an analysis and documentation station.

Motic offers a complete range of digital cameras starting with a basic resolution of 1.3MP (CMOS), up to the Research grade Moticam Pro Line (CCD) with maximum 5MP, including Monochrome and Cooled versions. These Moticam cameras deliver sharp live images with easy post-capture handling.







#### **Contrast Techniques**

#### Phase Contrast and Darkfield

For Phase Contrast and Darkfield, the BA410 offers a **slider solution** of easy handling for single Phase contrast lenses, using an **optional slot condenser** for each magnification of 10X, 20X, 40X and 100X in combination with phase slider PH1, PH2 and PH3. **The new EC-H Phase lenses** give a phase image with improved contrast and flatness. A respective **Darkfield slider** can be used from 4X to 40X lens magnification (N.A. up to 0.65).

As a standard, positive phase contrast lenses are supplied. Negative phase contrast is available on request.

For more advanced Phase contrast demands, a **turret condenser with phase rings for all objectives**, including a DF stop, is also available. Like the slider solution, the turret carries the light rings matching both positive and negative phase lenses.

#### Fluorescence Microscopy

The modular concept of the BA410 allows an easy upgrade to an **EPI-Fluorescence microscope** by using the fluorescence attachment. This device may carry up to **4 filter cubes.** A complete range of filter cubes is available, covering all routine applications from UV up to NIR excitation. Supplied with **band pass barrier filters**, **multi colour applications** can also be performed.

#### **General Specifications**

- Binocular/Trinocular head Siedentopf type, 30° inclined, 360° rotating (light split 100:0/20:80)
- Interpupillary distance 48-75mm
- Widefield high eyepoint eyepieces, N-WF10X/22mm, with diopter adjustment on both eyepieces and rubber eyecups
- Reversed quintuple/sextuple revolving nosepiece
- CCIS EC-H Plan 4X, 10X, 40X S and 100X S-Oil
- Coaxial coarse and fine focusing system
- · Hard anodized coated stage with built-in low position coaxial mechanical stage (right hand control)
- Achromatic swing-out condenser N.A. 0.90/0.13 with iris diaphragm
- Koehler illumination quartz halogen 6V/30W with external lamp house and intensity control
- Universal power supply 100-240V
- Blue filter, immersion oil, power cord, Allen hexagonal key, thumb screw and vinyl dust cover are included



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