

Motic®

BA300

Research and Laboratory Microscope

With Motic CCIS (Colour Corrected Infinity System) optics,
innovative design and unbeatable optical quality



BA300

Motic's new BA300 biological microscope delivers uncompromised optical clarity thanks to its integrated CCIS (Colour Corrected Infinity System). The instrument's superior ergonomic design and robust mechanical structure make it ideal for laboratory and research applications and a great platform for future expansion.

CCIS (Colour Corrected Infinity System)

Motic's own CCIS optical design incorporated into the BA300 maximizes optical compatibility as well as the application versatility. The microscope can be fitted with optional accessories such as Phase Contrast, Darkfield and Polarizing equipment without affecting optical quality.



BA300



The microscope stand

The BA300 is designed with the user in mind. Careful consideration has gone into the ergonomic design of the microscope as a whole as well as the placement of such vital elements as the focusing knobs and the coaxial mechanical stage controls. This design effort culminates in a microscope, which provides fatigue free operation even over long periods of usage.

The wide arm provides solid support and stability, perfect for high-magnification operation while the "T" design of the base gives the microscope a small footprint saving vital desk space in modern laboratories.

The light source

The light source is arguably the most important factor in any microscope. The BA300 features a powerful 6V/30W Quartz Halogen Koehler illumination system providing bright and even illumination at any setting and magnification. This flexible light source with built-in intensity control is perfect for all-round microscopy - not just Brightfield.



Observation tube

In order to maintain absolute parfocality, the BA300 features in a Siedentopf observation tube with constant tube length even when interpupillary distance is varied. Adding to the ergonomic theme of this microscope, the head is inclined at an optimal 30° for posture management.

A trinocular version is also available featuring a professional light distribution slider of 100% binocular or 100% photo making it ideal for photo microscopy and video microscopy applications.



Focusable Eyepieces

With Widefield 10X eyepieces as standard allowing for a field of view of 20mm, the BA300 offers impeccable optics as well as a large overview of your slide.

Independent diopter adjustments on each eyepiece, rather than on the eyepiece tube, is a professional feature usually reserved on more advanced models. Users wearing eyeglasses will find our eyepieces' high-eyepoint design very comfortable to use. Various reticles for measuring and counting are also available for these eyepieces.



Revolving Quintuple Nosepiece

This professional design of the nosepiece means that when using the BA300, the user has more space to change specimen slides therefore limiting any damage to the slides or the objectives. The nosepiece itself features a ball-bearing mechanism with positive click-stop to ensure that each change of magnification is accurate and centered.



Rectangular Mechanical Stage

The BA300 features a large (174mm x 145mm) hard coated mechanical stage with a travel range of 76mm x 50mm. Controlling the movement of the stage is made easy with low-positioned coaxial control knobs.

The stage surface is protected with a special hard coating against abrasion and fungus growth.



Condenser

The standard substage condenser is attached to the microscope using a dovetail mount and can be adjusted through a rack and pinion mechanism ensuring a durable and smooth range of adjustments.

This condenser has a slot for the Motic 3-position phase contrast slider (Ph10X, BF, Ph40X) which can easily be fitted for quick phase contrast microscopy.

An option on the BA300 is Motic's phase contrast turret condenser with a numerical aperture of 1.25 and five different positions. The turret condenser comes with two choices for Ph10X, Ph20X, Ph40X, Ph100X, BF or Ph10X, Ph40X, Ph100X, BF, DF. These condensers offer maximum flexibility when rapid and easy changes between illumination and contrasting techniques are required.



Objectives

The BA300 has an arsenal of high-quality objectives to choose from. Motic CCIS EF Plan objectives offer brilliant, crisp and high-contrast images with high working distances and numerical apertures. Optional Motic CCIS Plan Achromat and CCIS EF Plan Phase Achromat objectives are also available for even more outstanding optical performance.

Types of Objectives

Objectives	Types	Numerical Aperture	Working Distance
CCIS EF Plan Achromat Objectives	EF PL4X	0.10	6.3
	EF PL10X	0.25	3.9
	EF PL40X	0.65	0.4
	EF PL60X	0.80	0.14
	EF PL100X	1.25	0.12
CCIS Plan Achromat Objectives	PL4X	0.10	7
	PL10X	0.25	4.3
	PL20X	0.40	1.3
	PL40X	0.65	0.4
	PL100X	1.25	0.13
CCIS Plan Achromat Phase Contrast	PL Ph10X	0.25	4.3
	PL Ph20X	0.40	1.3
	PL Ph40X	0.65	0.4
	PL Ph100X	1.25	0.13

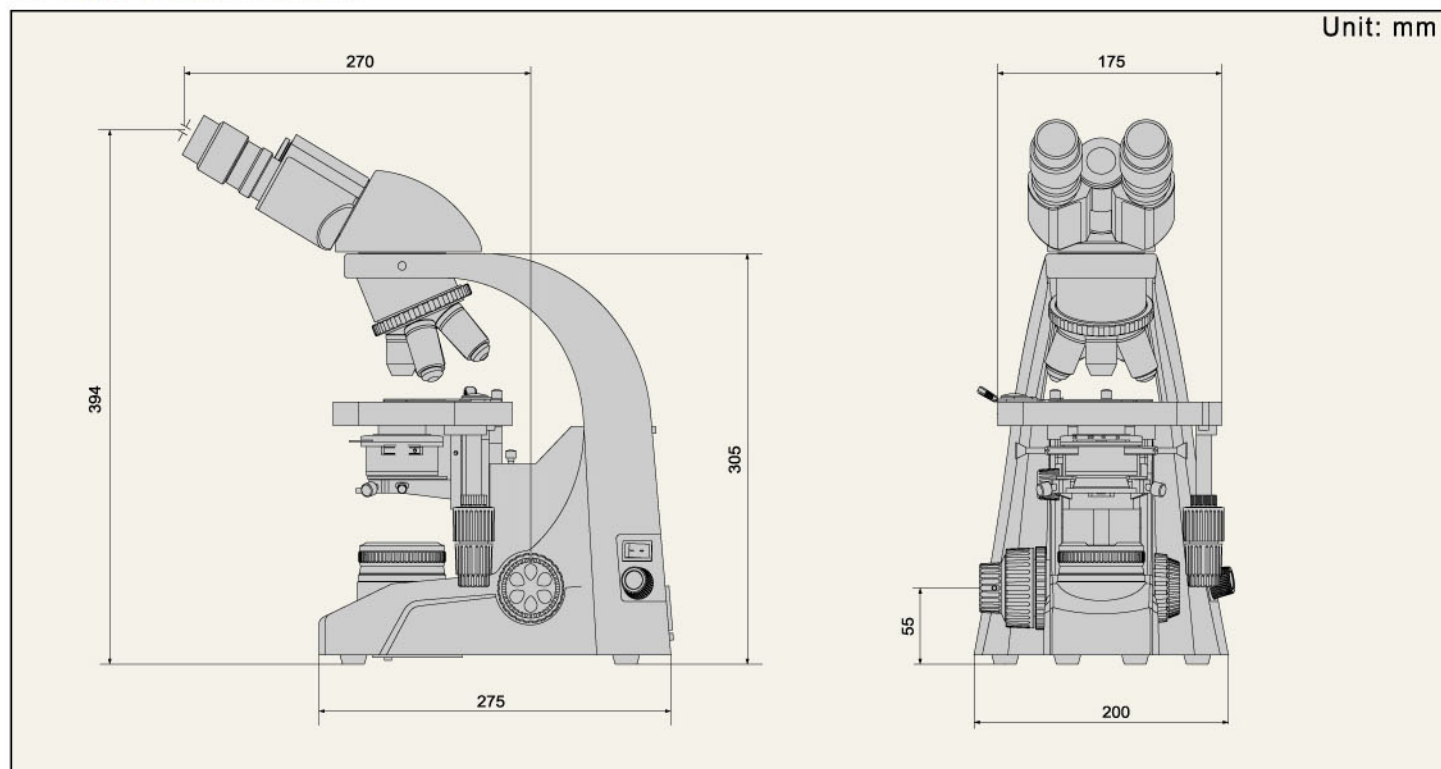


CCIS EF Plan Phase Achromat Objectives

Anti-fungus treatment

It goes without saying that a high-performance microscope such as the BA300 is protected against fungus growth. Therefore, all critical parts of the microscope such as Eyepieces, Objectives and Observation Tube are Anti-fungus treated to ensure image clarity and optical performance.

BA300 Dimensions



Technical Specifications

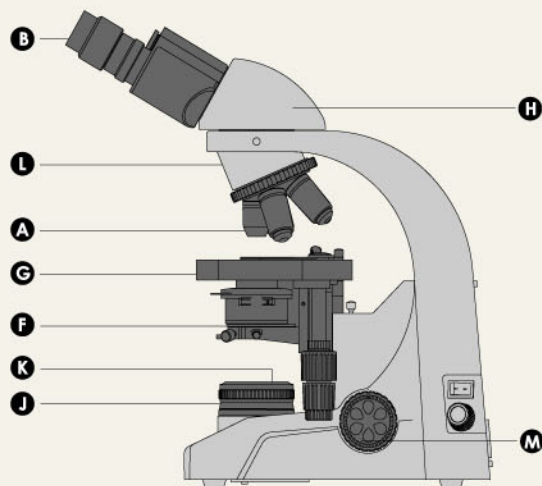
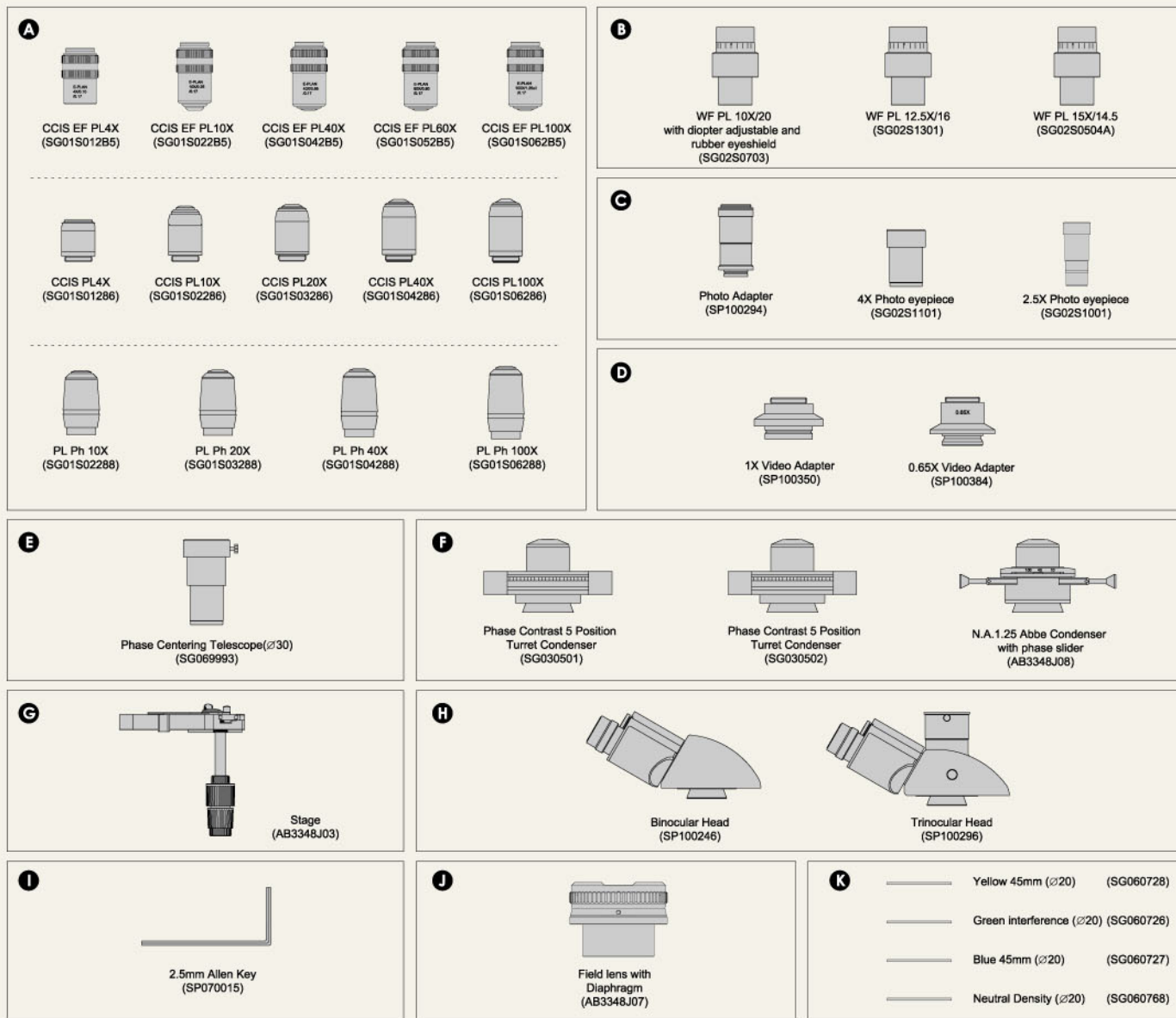
Optical System	Parfocal distance: 45mm CCIS (Colour Corrected Infinity System)
Observation Tube	Siedentopf type Binocular tube 30° Siedentopf type Trinocular tube 30° (light distribution: binocular 100%, binocular/photo: 0/100)
Eyepiece	Widefield high eyepoint WF 10X (FN20) with diopter adjustment
Coarse/Fine focusing	Control knobs coaxially positioned; movement per rotation: 42mm coarse/0.2mm fine; minimum increment: 2µm coarse motion torque adjustable; upper stage drive stop incorporated.
Stage	Rectangular 174 x 145mm surface area; 76 x 50mm cross travel range using low-positioned coaxial X and Y control knob on the right hand side. A hard coating to protect the stage surface from abrasion and wear. Vertical movement range - 27mm
Substage Illumination	6V/30W Quartz halogen lamp.
Filter	Blue

BA300 Standard & Optional Configuration

Specification with CCIS - Colour Corrected Infinity Optical System			Order Number	Bino	Trino
CCIS Objectives	CCIS EF Plan Achromat	CCIS EF PL 4X	SG01S012B5	●	●
		CCIS EF PL 10X	SG01S022B5	●	●
		CCIS EF PL 40X	SG01S042B5	●	●
		CCIS EF PL 60X	SG01S052B5	○	○
		CCIS EF PL 100X	SG01S062B5	●	●
	CCIS Plan Achromat	CCIS PL4X	SG01S01286	○	○
		CCIS PL10X	SG01S02286	○	○
		CCIS PL20X	SG01S03286	○	○
		CCIS PL40X	SG01S04286	○	○
		CCIS PL100X	SG01S06286	○	○
	CCIS Plan Achromat Phase	PL Ph10X	SG01S02288	○*	○*
		PL Ph20X	SG01S03288	○*	○*
		PL Ph40X	SG01S04288	○*	○*
		PL Ph100X	SG01S06288	○*	○*
Eyepieces	WFPL 10X/20, with diopter adjustment and rubber eyeshield		SG02S0703	●	●
	WFPL 10X/20 with cross line Ø 20		SG02S0155	○	○
	WFPL 12.5X/16		SG02S1301	○	○
	WFPL 15X/14.5		SG02S0504A	○	○
Binocular Tube	Siedentopf Type F.O.V. 20mm		SP100246	●	/
Trinocular Tube	Siedentopf Type F.O.V. 20mm		SP100400	/	●
Condenser	N.A. 1.25 Abbe condenser with slider slot		AB3348J08	●	●
	Phase contrast 5 position (10X, 20X, 40X, 100X, BF) turret condenser		SG030501	○*	○*
	Phase contrast 5 position (10X, 40X, 100X, BF, DF) turret condenser		SG030502	○*	○*
Sliders	Phase slider for 10X/40X		AB3348J09	○*	○*
	Slider for simple darkfield (10X-40X)		AB3348J28	○	○
Photo Adapter	Photo Adapter (requires one of the photo eyepiece below)		SP100294	/	○
Photo Eyepieces for Photomicrography	2.5X		SG02S1001	/	○
	4X		SG02S1102	/	○
C-Mount Camera Adapter	1X		SP100350	/	○
	0.65X		SP100384	/	○
Phase Centering telescope	Ø 30		SG069993	○*	○*
Filters	Yellow 45mm dia.		SG060728	○	○
	Green 45mm dia.		SG060726	○	○
	Blue 45mm dia.		SG060727	●	●
	Neutral Density (ND2) 45mm dia.		SG060729	○	○

Note: "●" represents the standard accessories, "○" represents the optional accessories, "○*" to be used with phase objectives

System Diagram



BA300

- C · D** Photo & Video Attachment
E Phase Centering Telescope
I Allen Key
L Nosepiece
M Fine Focus Knob