

BS-2091 Inverted Biological Microscope



BS-2091



BS-2091F

Introduction

BS-2091 Inverted Biological Microscope is a high-level microscope which is specially designed for medical and health units, universities, research institutes to observe cultured living cells and tissues. With innovative infinite optical system and ergonomic design, it has excellent optical performance and easy to operate features. The microscope has adopted long life LED lamps as transmitted and fluorescent light source. The microscope has smooth and comfortable operation, intelligent energy conservation system, it could be the best assistant for your work.

Feature

1. Ergonomic viewing head.

360° rotatable viewing head with 50mm-75mm adjustable inter-pupillary distance, the eye-point can be raised 34mm directly by rotating the tube at 65mm IPD, more convenient and faster than traditional way.



2. Safe and efficient LED.

Both the transmitted and EPI-fluorescent illumination have adopted LED lamps, energy saving and long-lasting, low heat, the illumination is safe and stable. X-Y mechanical stage and various specimen holders are available.



3. Intelligent ECO system

Based on the concept of energy conservation and environment protection, BS-2091 has been designed with ECO system. The illumination power can be automatically on or off through infrared induction.



4. Marking objective is available.

New designed "marking objective" with ink inside for marking the target, it is very practical and effective to extract the target cell when observe and culture the living cells.



5. Smart phone connection kit.

Specially designed kit which can be inserted into the eyepiece tube for combining a smart phone on a microscope, keep record on time by taking photo or video.



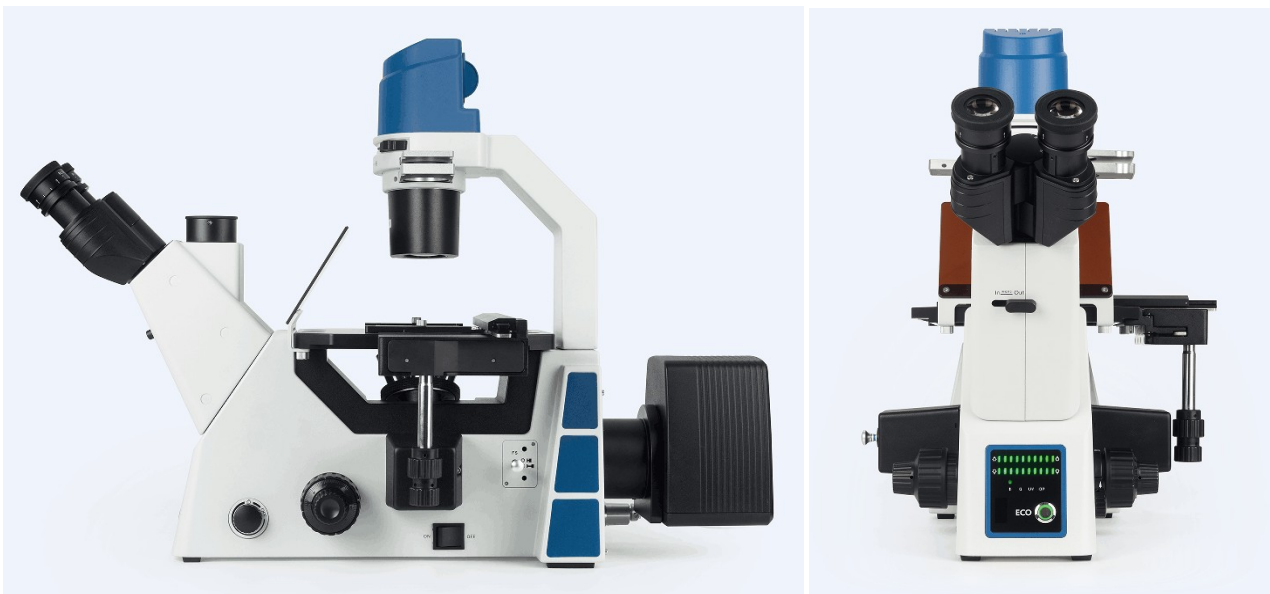
6. Professional LED reflected fluorescence illumination system.

BS-2091F is equipped with a professional LED reflected fluorescence illumination system, and can be equipped with high-quality fluorescent objective lenses and fluorescent filters, which can meet various research tasks.

(1) The fluorescence module has 4 positions. The standard configuration is Blue and Green fluorescence filters. Up to 3 sets of fluorescence filters can be installed.

(2) Using high-brightness narrow-band LED lamps as the light source, the service life can reach more than 50,000 hours, which is safe, efficient, does not need to be replaced, and is more environmentally friendly and energy-saving.

(3) BS-2091F inverted fluorescence microscope has added fluorescence filter status display, through the built-in sensor, the currently used fluorescent filter is displayed in front of the microscope, making research work more convenient and efficient.



7. Long working distance infinite plan achromatic objective and fluorescent objectives are available.



Long working distance infinite plan and phase contrast achromatic objective



Long working distance fluorescent infinite plan and phase contrast achromatic objective



Infinite plan Relief phase contrast achromatic objective

Application

BS-2091 inverted microscope can be used by medical and health units, universities, research institutes for observations of micro-organisms, cells, bacteria and tissue cultivation. They can be used for continuous observation of process of cells, bacteria grow and divide in the culture medium. Videos and images can be taken during the process. These microscopes are widely used in cytology, parasitology, oncology, immunology, genetic engineering, industrial microbiology, botany and other fields.

Specification

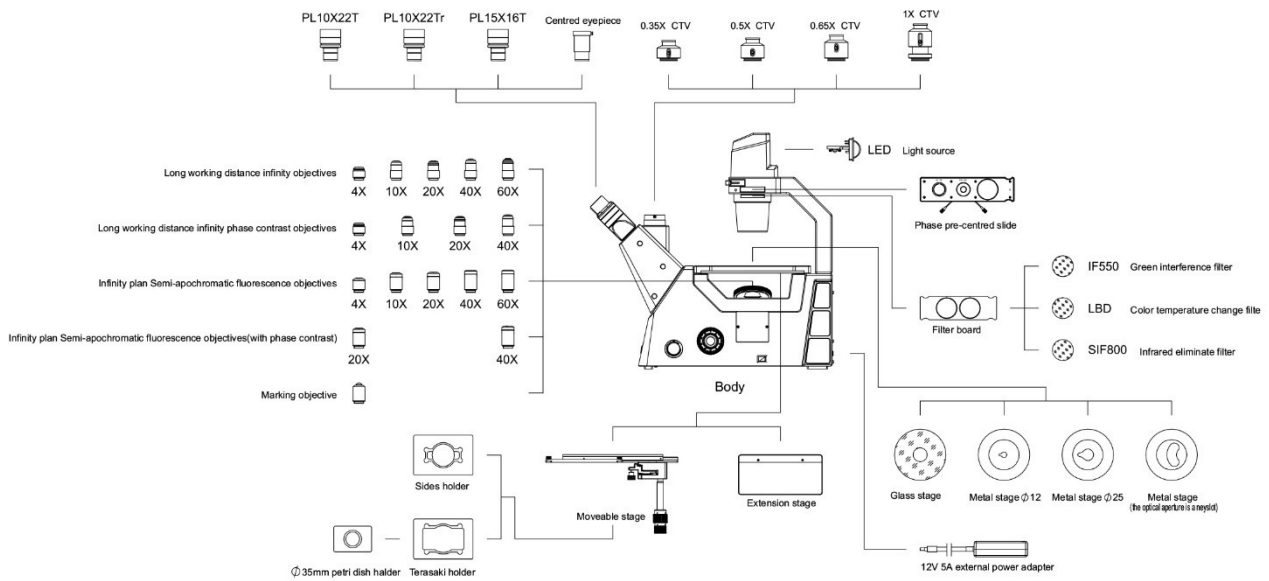
Item	Specification	BS-2091	BS-2091F	
Optical System	Infinite Optical System, Tube Length 180mm, Parfocal Distance 45mm	●	●	
Viewing Head	45° inclined Seidentopf trinocular head, 360° rotatable, fixed eyepiece tube, interpupillary range: 50-75mm, fixed splitting ratio, eyepiece: camera=20:80, Eyepiece Tube Diameter 30mm	●		
	45° inclined Seidentopf trinocular head, 360° rotatable, fixed eyepiece tube, interpupillary range: 50-75mm, 2 steps splitting ratio, eyepiece: camera=0:100, 100:0, Eyepiece Tube Diameter 30mm		●	
Eyepiece	High eye-point wide field plan eyepiece PL10×/22mm, with adjustable diopter	●	●	
	High eye-point wide field plan eyepiece PL10×/22mm, with adjustable diopter and eyepiece micrometer	○	○	
	High eye-point wide field plan eyepiece PL15×/16mm, with adjustable diopter	○	○	
Objective (Parfocal distance 45mm, RMS (20.32x	Infinite LWD Plan			
	Achromatic Objective	4× /0.13, WD=10.40mm	○	○
		10×/0.25, WD=7.30mm	○	○
		20×/0.40, WD=6.79mm	○	○
		40×/0.65, WD=3.08mm	○	○

0.706mm))		60×/0.70, WD=1.71mm	○	○
	Infinite LWD Plan Phase Contrast Achromatic Objective	PH4×/0.13, WD=10.43mm	●	○
		PH10×/0.25, WD=7.30mm	●	○
		PH20×/0.40, WD=6.80mm	●	○
		PH40×/0.65, WD=3.08mm	●	○
	Infinite LWD Plan Fluorescent Objective	Fluor 4×/0.13, WD=18.52mm	○	●
		Fluor 10×/0.30, WD=7.11mm	○	●
		Fluor 20×/0.45, WD=5.91mm	○	○
		Fluor 40×/0.65, WD=1.61mm	○	○
		Fluor 60×/0.75, WD=1.04mm	○	○
	Infinite LWD Plan Phase Contrast and Fluorescent Objective	FL PH20×/0.45, WD=5.60mm	○	●
		FL PH40×/0.65, WD=1.61mm	○	●
	Infinite LWD Plan Relief Phase Contrast Achromatic Objective	RPC 4×/0.13, WD=10.43mm	○	○
		RPC 10×/0.25, WD=7.30mm	○	○
RPC 20×/0.40 RPC, WD=6.80mm		○	○	
RPC 40×/0.65 RPC, WD=3.08mm		○	○	
Marking Objective	Used to mark on petri-dishes	○	○	
Nosepiece	Inward Quintuple Nosepiece	●	●	
	Inward Quadruple Nosepiece	○	○	
Condenser	N.A. 0.3 LWD Condenser, Working Distance 72mm, detachable	●	●	
Telescope	Centering Telescope(Φ30mm): used to adjust the center of phase annulus	●	●	
Phase Annulus	4×, 10×-20×, 40× Phase Annulus Plate (center adjustable)	●	●	
RPC Plate	RPC Plate, used with Relief Phase Contrast objectives	○	○	
Stage	Stage 215 (X)×250(Y) mm fixed stage with glass insert plate (Φ110mm)	●	●	
	Attachable Mechanical Stage, X-Y Coaxial Control, Moving Rang: 120(X)×80(Y) mm	○	●	
	Extension stage, used to extend the stage	○	●	
	Terasaki Holder: used for Φ35mm Petri Dish Holder and Φ65mm petri dishes (Φ65mm and 56×81.5mm)	○	●	
	Glass Slide Holder and Petri Dish Holder (Φ54mm and 26.5×76.5mm)	○	●	
	Petri Dish Holder Φ35mm	●	●	
	Metal plate Φ12mm (water drop type)	○	○	
	Metal plate Φ25mm (water drop type)	●	○	
	Metal plate (kidney type)	○	●	
Focusing	Coaxial Coarse and Fine Adjustment, tension adjustment knob, Fine Division 0.002mm, Fine stroke 0.2mm per rotation, Coarse stroke 37.5mm per rotation. Moving Range: 9mm, focal plane up 6.5mm, down 2.5mm	●	●	
Transmitted Illumination	5W LED (cold/warm color temperature are optional, cold color temperature 4750K-5500K, warm color temperature 2850K-3250K), Pre-centered, Brightness Adjustable, with light intensity indicator and infrared sensor	●	●	
EPI-Fluorescent	Kohler LED illumination, 4 channels for fluorescent filters, configured with 3 types	○	●	

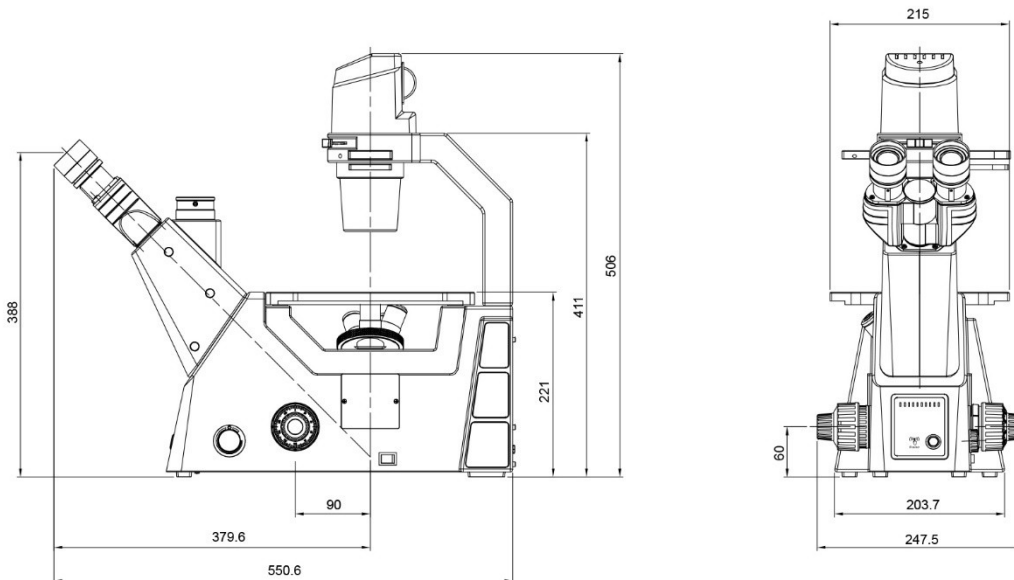
Attachment	5W LED lamp: 385nm, 470nm and 560nm. Pre-centered, motorized LED lamp automatically switchover according to the fluorescent filters		
	B1 fluorescent filters (band-pass type), works with LED lamp of central wavelength 470nm	○	●
	G1 fluorescent filters (band-pass type), works with LED lamp of central wavelength 560nm	○	●
	UV1 fluorescent filters (band-pass type), works with LED lamp of central wavelength 385nm	○	○
Eyes Protective Plate	Eyes Protective Plate, used to prevent harm from fluorescent light	○	●
Filters for Transmitted Illumination	Green filter (Φ45mm)	●	●
	Blue filter (Φ45mm)	●	●
Cellphone Adapter	Cellphone Adapter (used to connect to eyepiece)	○	○
	Cellphone Adapter (used to connect to trinocular tube, include eyepiece)	○	○
C-mount Adapter	0.35× C-mount Adapter (focus adjustable, could not work with fluorescent microscope)	○	
	0.5× C-mount Adapter (focus adjustable)	○	○
	0.65× C-mount Adapter (focus adjustable)	○	○
	1× C-mount Adapter (focus adjustable)	○	○
Trinocular Tube	Trinocular Tube Φ23.2mm, used to connect camera	○	○
Other Accessories	Allen wrench, M3 and M4, 1pc each	●	●
	Fuse, T250V500mA	●	●
	Dust cover	●	●
Power Supply	External Power Adapter, input voltage AC 100-240V, 50/60Hz, output 12V5A	●	
	External Power Adapter, input voltage AC 100-240V, 50/60Hz, output 12V5A, transmitted and reflected illumination separately control		●
Packing	1 cartons/set, Packing Size: 68cm×67cm×47cm, Gross Weight: 16kgs, Net Weight: 14kgs	●	
	1 cartons/set, Packing Size: 73.5cm×67cm×57cm, Gross Weight: 18kgs, Net Weight: 16kgs		●

Note: ● Standard Outfit, ○ Optional

Configuration



Dimension



Unit: mm

Sample Images

