BIONEX

BX-400T

Trinocular Microscope

Features:

- Outstanding infinity color corrected optical system
- 22mm wide field
- Rotatable viewing tube
- Super large ceramic rack less stage
- Super endurance function
- With ECO energy-saving working mode
- User-friendly design increases comfort and safety
- Flexible manipulation of the LED fluorescent module
- Body power supply function Simple brightness adjustment knob and easy switching of bright field / fluorescent

Introduction

BX-400T microscope is high quality biological microscope, designed for universities or laboratories of biomedicine and other fields, can be used for teaching experiments and medical testing. Innovation design style, high quality and convenient, to bring you a simple and comfortable use experience.

Application

Various observations such as bright field, dark field and phase contrast can meet the needs of routine teaching and experimental observation.

Features

1.Outstanding infinity color corrected optical system

Infinity color corrected system, professional plan achromatic objectives and cutting-edge microscopy technology, provide microscopic images with high resolution, high definition and high contrast.

2.22mm wide field

SM-2047FT biological microscope can achieve a wide field of view range of 22mm under 10X eyepiece, which is more efficient and perfect for observation. Professional high eye point and wide field plan eyepiece can effectively correct edge distortion and chromatic aberration.

3.Rotatable viewing tube

Viewing tube with gemel group 360°rotation function, adjustable pupil distance, eye point height, for different height of the operator to provide a more flexible and comfortable experience.

4.Super large ceramic rack less stage

Double-layer mechanical stage, large arc shape, no angular design. The stage surface adopts ceramic paint process, high hardness, corrosion resistance. Damping-type double clips can be placed two slices at the same time, for inspection and comparative analysis.

5.Super endurance function

The body is equipped with a Type-C interface, which allows the microscope to use a portable battery as a power source. The microscope thus frees itself from dependence on power outlets, enabling easy use outdoors or in power outages. The body comes with a standard USB port, that allows the microscope to charge a phone or tablet.

Charge the microscope by the portable battery

Charge cell phones and tablets by the microscope

6.With ECO energy-saving working mode

Build-in ECO function, no operation for 30 minutes, the system will automatically turn off and into the standby mode. Users can automatically wake up the light source by touching the dimming knob.

7.User-friendly design increases comfort and safety

SM-2047FT is equipped with a secure handle for moving. Fully concealed locking design eliminates all sharp edges. Low hand coarse and fine coaxial focus system is ergonomically designed to give the user maximum comfort. There is a storage device at the back of the body to ensure the cleanliness, saving storage space and improving portability.

8.Flexible manipulation of the LED fluorescent module

The innovative reflected LED fluorescence device greatly simplifies the operation process of the fluorescence microscope, making the microscopy experiment more simple, safe and efficient. With light source brightness adjustment knob according to the characteristics of different specimens to set the appropriate illumination brightness. Rotating bright field / fluorescence switch knob, convenient for users to achieve easy conversion between transmitted light illumination and reflected fluorescence illumination.

9.Body power supply function

Built in 12V 1A transformer can directly charges the fluorescent illumination, easy to connect and safe to use.

10.Simple brightness adjustment knob and easy switching of bright field / fluorescent

By adjusting the knob, you can adjust the intensity of LED fluorescent lighting to get the required light.

According to the application needs, rotate the bright field / fluorescent switch knob, you can instantly achieve two kinds of observation switchover.

Switch to the fluorescence channel and use the LED fluorescence intermediate module to perform fluorescence observation for TB detection or immunofluorescence analysis and in vivo cell observation.

Switching to the bright field channel allows the use of transmitted light for routine pathological testing or laboratory observation.

Technical Specifications

Item	Specification		BX-400T	BX-480T
Optical System	Infinite Color Corrected Optical System		●	●
Viewing Head	30 degree gemel binocular tube, 360° rotatable, adjustable eye-point height from 375mm to 428.5mm, fixed eyepiece tube, interpupillary distance: 48-76mm		●	○
	30 degree gemel trinocular tube, 360° rotatable, adjustable eye-point height from 375mm to 428.5mm, fixed eyepiece tube, interpupillary distance: 48-76mm, splitting ratio: 50:50		○	●
Eyepiece	High eye point wide field plan eyepiece PL10X/20mm, with adjustable diopter		○	○
	High eye point wide field plan eyepiece PL10X/20mm, with adjustable diopter and micrometer		○	○
	High eye point wide field plan eyepiece PL10X/22mm, with adjustable diopter		●	●
	High eye point wide field plan eyepiece PL10X/22mm, with adjustable diopter and micrometer		○	○
	High eye point wide field plan eyepiece PL10X/22mm, with adjustable diopter, micrometer and grid plate		○	○
Objective	Infinity Plan Achromatic Objectives	2×, NA=0.06, WD=5.00mm (should work with frosted filter)	○	○
		4×, NA=0.10, WD=15.00mm	○	○
		10×, NA=0.25, WD=10.80mm	●	●
		20×, NA=0.4, WD=1.50mm	●	●
		40×, NA=0.65, WD=0.80mm	●	●
		60×, NA=0.85, WD=0.30mm	○	○
		100×, NA=1.25, WD=0.21mm	●	●
	Infinity Plan Phase Contrast Objective	10×, NA=0.25, WD=10.80mm	○	○
		20×, NA=0.40, WD=1.50mm	○	○
		40×, NA=0.65, WD=0.80mm	○	○
		100×, NA=1.25, WD=0.21mm	○	○
	Infinity Plan Semi-	4x, NA=0.13, WD=16.4mm	○	○
		10x, NA=0.3, WD=8.1mm	○	○

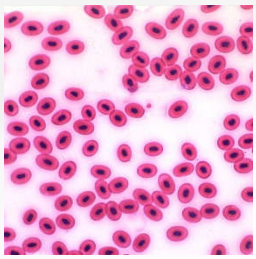
Item	Specification		BX-400T	BX-480T
	Apochromatic Objective	20x, NA=0.5, WD=2.0mm	○	○
		40x, NA=0.75, WD=0.74mm	○	○
		100x, NA=1.28, WD=0.14mm	○	○
Nosepiece	Quintuple Nosepiece		●	●
Stage	Double layers mechanical ceramic paint stage, 210mm*171mm, precision: 0.1mm (X-axis rackless). Clips for double sliders, moving range: 78mm*51mm.		●	●
Condenser	N.A. 1.25 Koehler illuminator condenser (with slot for phase contrast and dark field accessories) with aperture diaphragm.		●	●
Focusing	Low hand coarse and fine coaxial focus system, with elastic adjustment device and upper limit device. Coarse adjustment range is 27mm. Fine tuning accuracy is 2 μm.		●	●
Transmitted Illumination	100V -240V external transformer, 3W LED with continuous intensity control, cool color temperature from 4750K to 5500K. Type-C interface allows portable battery as a power source. With ECO function.		●	●
Microscope Body	For Fluorescent microscope		●	●
LED Fluorescent Module	B1 band pass filter LED fluorescent module, with intensity adjust knob, BF/FL switching knob and eye guard. LED 5WLED, 470nm, EM: 535/40nm, EX480/30nm, BS505nm		●	●
	B2 long pass filter LED fluorescent module, with intensity adjust knob, BF/FL switching knob and eye guard. LED 5WLED, 470nm, EM: 535nmLP, EX480/30nm, BS505nm		○	○
	B4 TB – LED fluorescent module for TB, with intensity adjust knob, BF/FL switching knob and eye guard. LED 5WLED, 455nm, EM: 485nm, EX450/50nm, BS480nm		○	○
	G1 band pass filter LED fluorescent module, with intensity adjust knob, BF/FL switching knob and eye guard. LED 5WLED, 470nm, EM: 635/60nm, EX560/40nm, BS600nm		○	○
	UV2 long pass filter LED fluorescent module, with intensity adjust knob, BF/FL switching knob and eye guard. LED 5WLED, 385nm, EM: 375/28nm, EX365/10nm, BS415nm		○	○
	UV4 long pass filter LED fluorescent module, with intensity adjust knob, BF/FL switching		○	○

Item	Specification	BX-400T	BX-480T
	knob and eye guard. LED 5WLED, 365nm, EM: 435nm, EX365/10nm, BS400nm. For TB.		
	LED fluorescent light barrier	●	●
Dark Field Accessories	Dark Field Insert Plate (used for 4×-40× objectives)	○	○
Centering Telescope	Centering Telescope Φ30mm (used with phase contrast plate and objective)	○	○
Phase Contact Accessories	Phase Contrast Insert Plate (used for 10×, 40× phase contrast objectives)	○	○
	Phase Contrast Insert Plate (used for 20×, 100× phase contrast objectives)	○	○
C-mount Adapter	0.35× C-mount adapter, adjustable	○	○
	0.5× C-mount adapter, adjustable	○	○
	0.65× C-mount adapter, adjustable	○	○
	1× C-mount adapter, adjustable	○	○
Other Accessories	Frosted glass accessories (used with 2X Infinity Plan Achromatic Objectives)	○	○
	Micrometer	○	○
Other	Fluorescent free oil 30ml	●	●
	Internal hexagonal Spanner M4	●	●

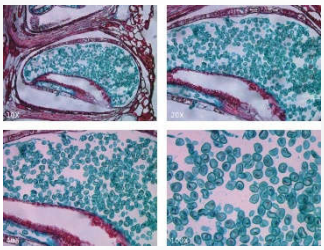
Note: ● Standard Outfit, ○ Optional

Bright field observation

The professional plan achromatic objective, with the user of the Kohler illumination system, adjusts the image to the best condition by adjusting the aperture diaphragm and the field diaphragm. High-resolution, high-contrast microscopic images can be obtained whether at low or high magnification.



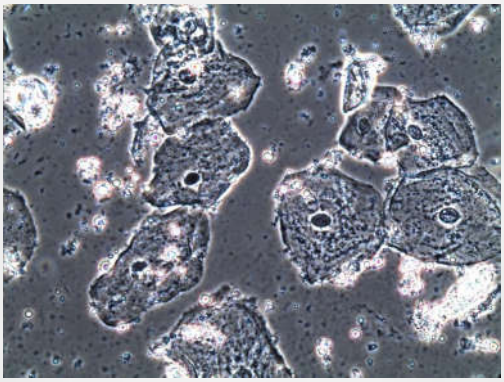
Blood cell 20X bright field



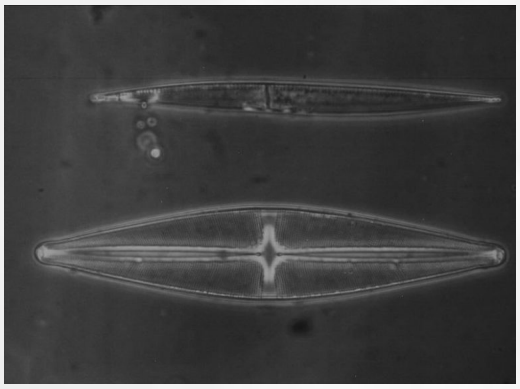
Male tapeworm transverse cleavage bright field

Phase contrast observation

It is suitable for observing samples with high transparency, such as cells, bacteria and other tiny, transparent objects in biological specimens.



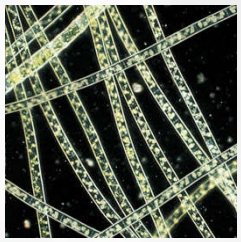
Oral epithelial cells 40X phase contrast



Diatom 20X phase contrast

Dark field observation

Insert the dark field kit into the socket of the condenser and push the dark field diaphragm into the optical path to achieve simple dark field observation. Without replacing the special dark field condenser, dark field observation can be performed on and magnification objective in the range of 4X-40X, which can be used to observe protozoa, bacterial flagella spirochetes and other substances.



Watermill 20X dark field

Accessories

1.Photograph accessories

Using the special C-mount and photo cube, it can be connected to a digital camera to quickly take pictures and acquire images.

2.Objectives

Infinity plan semi-apochromatic objective

Infinity plan semi-apochromatic objective designed for fluorescence observation. The image is vivid and clear, the background is pure black, and the UV fluorescence has outstanding performance, which is the best choice for professional fluorescence observation of various cells and pathological sections.

Infinity plan achromatic objective

Infinity plan achromatic objectives improve the plan and contrast, perfect correction of all kinds of chromatic aberration. Large numerical aperture design provides high definition and high contrast microscopic images.

Infinity plan achromatic phase contrast objective

Infinity plan achromatic phase contrast objective adds phase contrast observation function on the basis of bright field observation, providing high definition, high contrast microscopic images. It is especially suitable for the observation of colorless transparent or light-colored cells.

CE

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