

Live Cell Imaging Platform

# PX43 Inverted Microscope

#### **→**Contents

Product Description	02
Highlights	04
Multiple Observation	08
Specifications&Dimensional Diagram	09
System Diagram	10

# **PX43** Inverted Microscope

The PX43 is an intelligent inverted microscope. It adopts CCIS infinite distance optical system and the body, OLED display, and software are synchronized encoded. It provide you with scalability without destroying the imaging quality. The PX43 has many accessories and provides you with bright-field , phase contrast, fluorescence and other observation modes. A new generation of professional image analysis software Analysis Bio with simple and intuitive interface, which is rich in functions and easy to use. The software provides a wide range of functions and measurement tools for a variety of applications, which greatly improves the user's work efficiency .

#### **MoticamS Series**





## **Ergonomic Observation Tubes**

The observation tube can be rotated 360° freely and provides users with a comfortable observation angle. You can maintain a comfortable posture for operation and reduce fatigue for long-time work.



# Angle-adjustable Fluorescent Baffle

The PX43 FS6 is equipped with a continuously angleadjustable fluorescent shield, which can be adjusted according to the user's habits and usage scenarios to protect your eyes from fluorescent light sources.



## Large Working Distance

The large working distance of 72mm provides sufficient space for placing various cell culture containers.



## Flexible Selection of Transmitted Light Source

You can choose 50W halogen lamp or 10W LED for transmitted light source. Both of them can reach the optimal state. The field of view is bright and uniform, and the user can easily change the lighting source according to the actual use requirements.



#### Coded 5+1 Filter

The PX43 FS6 comes standard with high-quality DAPI, FITC and TRITC filters, and adopts a 5+1-channel intelligent coded fluorescence turret, which can support up to 5-channel for fluorescence observation and 1-channel for bright field observation.







# **Coded Objective Turret**

It comes standard with a 5-hole coded objective turret, which supports up to 5 objectives with different magnifications. While acquiring rich sample information, the software can automatically identify objective changes, and after switching objectives, the software can display the current objective magnification, and the pictures can be traced back to the magnification information, which can improve your work efficiency.



# Real-time Display of Microscope Status

The front OLED display with simple UI design and smooth operation. It can display microscope working status information such as objective magnification, brightness, filters, etc. And the display can be refreshed in real time with the user's operation to show the working status of the microscope, which makes the user's operation smarter and more convenient.



4



#### **Multifunctional Knob**

The knob integrates a variety of function, light source switching and brightness control, filter configuration, objective configuration, and ECO time setting. This greatly improves the user's working efficiency.

- Light Source Selection: Various transmission/falling light sources can be freely selected according to the application.
- ECO time setting: Sleeping time can be set to wake up the microscope at any time.
- Objective Configuration: Coded objective turret with brightness memory function.
- Filter Configuration: Filter types can be set.













**Multiple Carrier Tray Options** 

The PX43 comes standard with a hard-coated stage and an optional mechanical stage, which supports with various types of carrier trays that can be easily swapped out by the user, in order to meet the needs of various types and sizes of cell culture containers, such as flasks, Petri dishes, and 96-well plates for observation of different samples.





(40x77mm)







35mm Petri dish holder

# Wide Selection of Fluorescent Light Sources

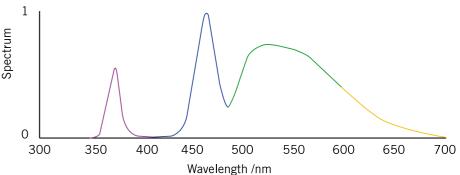
The PX43 FS6 supports not only traditional mercury fluorescent lamps, but also Motic LED fluorescent lamps, LUMOS3, and metal halide fluorescent lamps, LUMOS X.

LUMOS3: No need to warm up, average life up to 20,000h. Low phototoxicity, friendly to weak fluorescence observation. Each channel is independently controlled and can automatically match the light source when switching filters.

LUMOS X: Average life up to 3000h, only 90s warm-up, adjustable light intensity. The light source status and cumulative hours of use can be displayed, making it easy for the user to check the use of the light source.

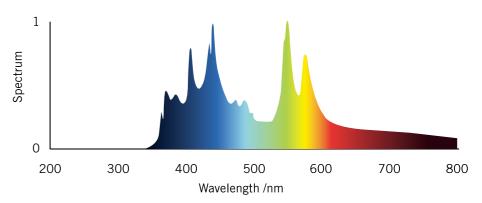
#### LUMOS3





#### LUMOS X



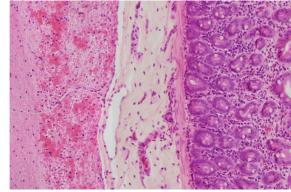




The PX43 series of microscopes features superior optics combined with innovative mechanics to keep pace with the technology of applications in many fields of biology, histology, microbiology, immunology and medicine. Flexible configurations are available to meet the observational needs of different users.

#### BF

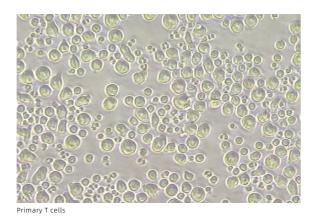
The newly designed long working distance plan objectives adoption of multi-layer wideband coating technology which significantly enhances the image contrast and presents high-quality images.



#### Sm

#### PH

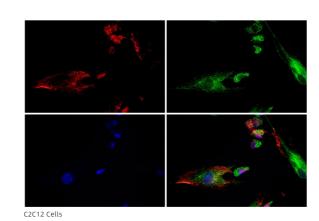
Phase contrast observation is mainly used for the observation of living cells, which can clearly display unstained samples. High-performance Plan UC and Plan Fluor phase contrast objectives of different magnifications are used in conjunction with phase contrast inserts to provide high-quality phase contrast observation.



#### FL

Plan UC Fluor Fluorescence objectives are specially designed with low-short-absorption-rate optical materials, which greatly increase the transmittance of various excitation light (including UV).

High-performance Plan UC Fluor fluorescence phase contrast objectives ensure the phase contrast imaging and fluorescence imaging, obtaining high brightness, high definition and high contrast fluorescence images.

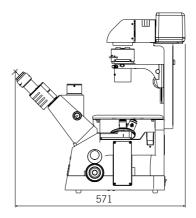


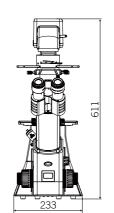
# **Specifications**

Model	PX43 BIO	PX43 FS6	
Optical System	CCIS Infinitely Corrected Optical System		
Observations	BF , PH	BF, PH, FL	
Transmitted Light Illuminator	10W LED 50W halogen illuminator		
Fluorescence light source	-	100W mercury lamps Metal halide fluorescent lamps LUMOS X LED fluorescent lamp LUMOS3	
Observation Tube	45° inclined trinocular tube with 360° rotatable tube (Optional light split ratio 100: 0, 20: 80/100: 0, 0: 100)		
Eyepieces	FN22, 10x/22m FN23, 10x/23mm FN16, 15x/16mm		
Nosepieces	Coded Quintuple (5) Revolving Nosepiece		
Objectives	Plan Achromat 4x PH0 N.A 0.10, W.D. 12.6 mm Plan Achromat 10x PH1 N.A 0.25, W.D. 4.1 mm LD Plan Achromat 20x PH1 N.A 0.30, W.D. 4.7 mm LD Plan Achromat 40x PH1 N.A 0.50, W.D. 3.0 mm LD Plan Achromat 40x PH2 N.A 0.50, W.D. 3.0 mm Plan Achromat 4x PH0 N.A.0.1, WD 12.6 mm Plan Achromat 10x PH1 N.A.0.25, WD 10.2 mm LD Plan Achromat 20x PH1 N.A.0.4, WD 8.2 mm LD Plan Achromat 40x PH1 N.A.0.55, WD 2.0 mm LD Plan Achromat 60x PH2 N.A.0.65, WD 2.0 mm Plan Flour 10x N.A 0.3, W.D. 17.2 mm Plan Flour 10x N.A 0.3, W.D. 11.2 mm LD Plan Flour 40x N.A 0.45, W.D. 5.0 mm LD Plan Flour 40x N.A 0.65, W.D. 1.3 mm LD Plan Flour 60x N.A 0.75, W.D. 1.0 mm  Plan Fluor LWD 10x PH1 N.A 0.30, W.D. 11.2 mm Plan Fluor LWD 10x PH1 N.A 0.45, W.D. 5.0 mm Plan Fluor LWD 10x PH1 N.A 0.45, W.D. 5.0 mm Plan Fluor LWD 10x PH1 N.A 0.45, W.D. 5.0 mm		
Stage	200mm x 239mm fixed stage with hard coated surface, which can resistant to scratching, scuffing and corrosion Optional mechanical carrier can be fitted with various sample cups		
Condensers	Long working distance condenser N.A. 0.3, W.D. 72mm		
Focus	Long working distance condenser N.A. 0.5, W.D. 28mm  Stroke per revolution: 42mm/coarse adjustable, 0.2mm/fine adjustable; minimum increment: 0.002mm.		
Fluorescence Filter Sets	AT-DAPI/Hoechst/AlexaFluor 350 AT-EGFP/FITC/Cy2/AlexaFluor 488 AT-TRITC/Cy3/TagRFP/AlexaFluor 546 (and other customised Fluorescence Filter Sets)		
Software	Professional image process	ing software: Motic Analysis Bio	

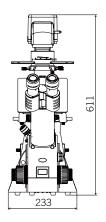
# Dimensional Diagram (mm)

#### PX43 BIO

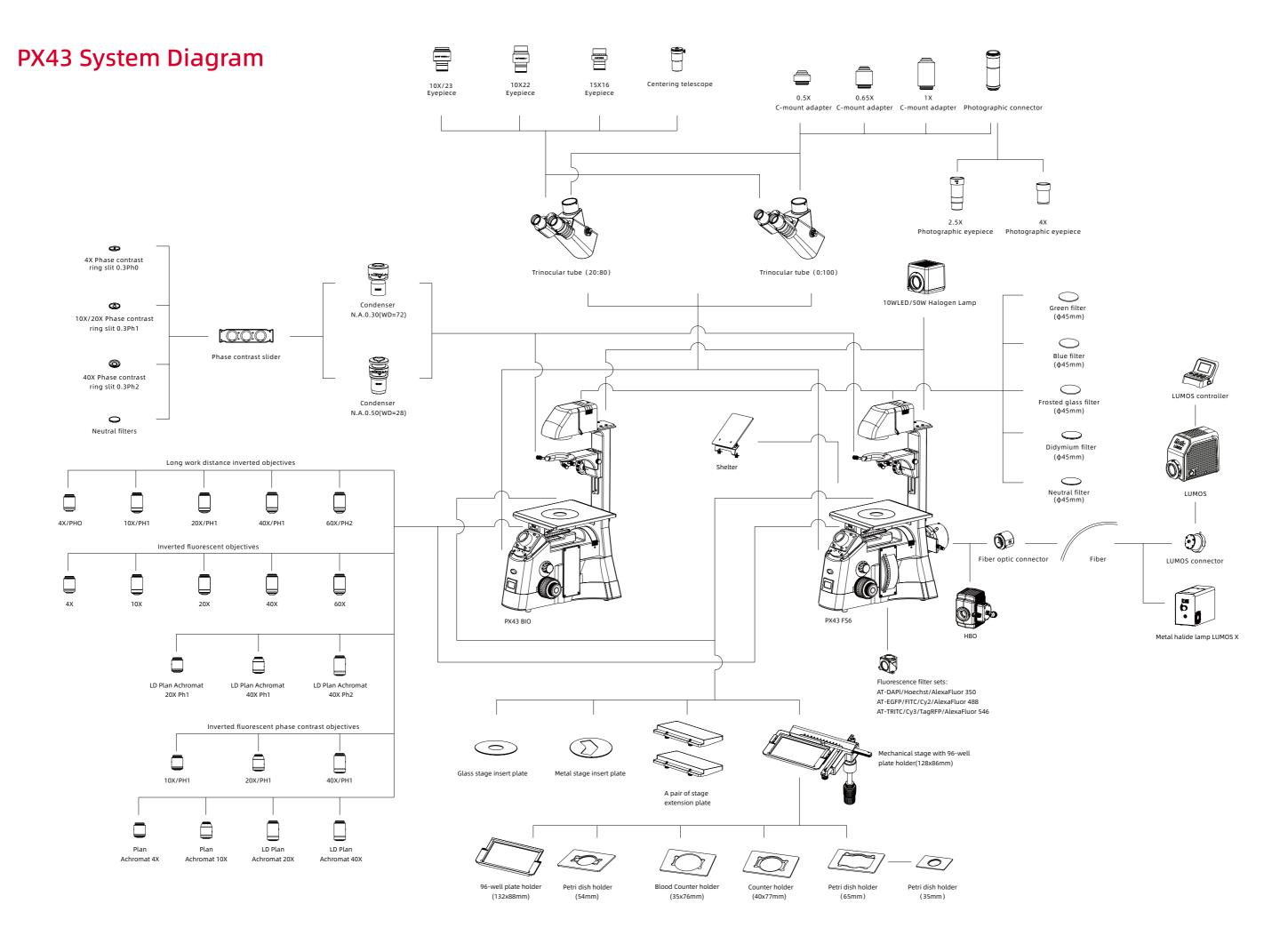




PX43 FS6



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