

**Motic®**

MORE THAN MICROSCOPY



# PX43 BIO & FS6 Series

Live Cell Imaging Platform

# PX43

PX43 Inverted Microscope

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## PX43 Inverted Microscope

The PX43 is an intelligent inverted microscope featuring a CCIS infinity-corrected optical system. Its body, OLED display, and software are synchronously encoded, ensuring seamless integration and control. The PX43 offers excellent scalability without compromising imaging quality. It supports a wide range of accessories and enables multiple observation modes, including brightfield, phase contrast, fluorescence, and more. The system comes with Analysis Bio, a new generation of professional image analysis software. With its intuitive interface and powerful features, the software is easy to use and highly functional. It includes a comprehensive set of measurement tools designed for various applications, significantly enhancing user efficiency.

### MoticamS Series

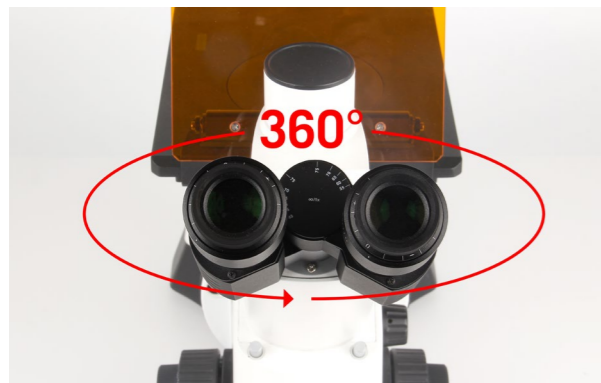


# PX43 BIO&FS6

# PX43 BIO&FS6

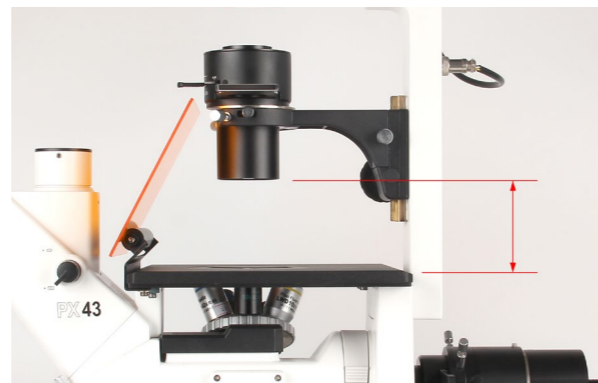
## Ergonomic Observation Tubes

The observation tube can be freely rotated 360°, allowing users to adjust to a comfortable viewing angle. This ergonomic design helps maintain a natural posture during operation and reduces fatigue during extended periods of use.



## Large Working Distance

The PX43 offers a generous 72mm working distance, providing ample space for a wide variety of cell culture containers, enhancing flexibility and ease of use.



## Coded 5+1 Fluorescence Filter Turret

The PX43 FS6 features a smart 5+1-channel coded fluorescence turret, pre-installed with high-quality DAPI, FITC, and TRITC filters. It supports up to five fluorescence channels and one brightfield channel, allowing for efficient multi-channel imaging.



## Angle-adjustable Fluorescent Baffle

Equipped with a continuously angle-adjustable fluorescent shield, the PX43 FS6 allows users to customize the baffle position based on personal preferences and specific applications, effectively protecting the eyes from fluorescent light exposure.



## Flexible Transmitted Light Source Selection

Users can choose between a 50W halogen lamp or a 10W LED light source for transmitted illumination. Both options deliver bright, uniform fields of view and can be easily switched depending on the application's requirements.



## Coded Objective Turret

The standard 5-position coded objective turret supports multiple magnifications. The system automatically detects and displays the current objective magnification. This information is embedded in the image metadata, allowing for easier image tracking and improving workflow efficiency.



## Real-time Microscope Status Display

A front-facing OLED display with an intuitive user interface shows real-time microscope status, including objective magnification, illumination intensity, filter settings, and more. The display updates instantly with user adjustments, making operation smarter and more convenient.



# PX43 BIO&FS6

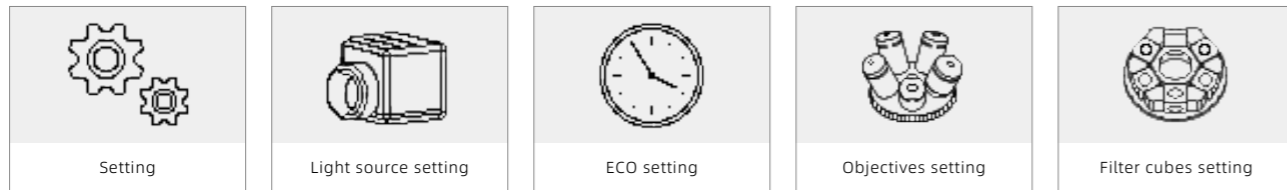
## Multifunctional Control Knob

This integrated knob streamlines microscope control, enabling quick access to several key settings:

- **Light Source Selection:** Easily switch between transmitted and reflected light sources.
- **ECO Timer Setting:** Configure sleep mode and automatic wake-up time.
- **Objective Configuration:** Includes brightness memory and auto-recognition of objective changes.
- **Filter Configuration:** Customize and select filter channels as needed.

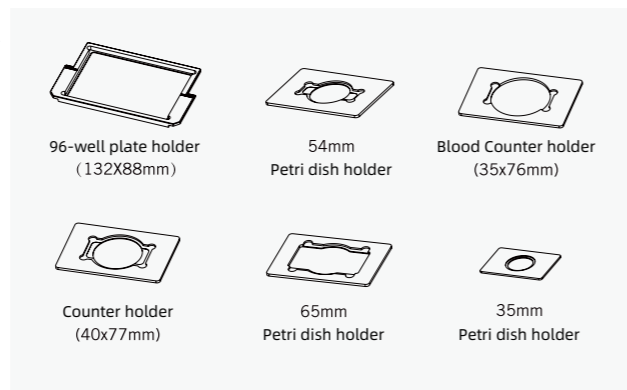


This multifunctional design significantly enhances operational efficiency.



## Multiple Carrier Tray Options

The PX43 comes standard with a hard-coated stage and offers an optional mechanical stage. It supports various interchangeable carrier trays to accommodate a wide range of cell culture vessels, including flasks, Petri dishes, and 96-well plates, meeting diverse sample observation needs.



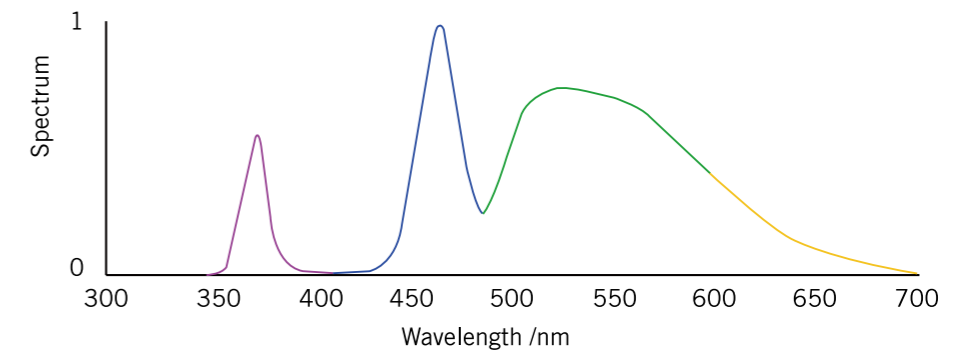
# PX43 BIO&FS6

## Wide Selection of Fluorescent Light Sources

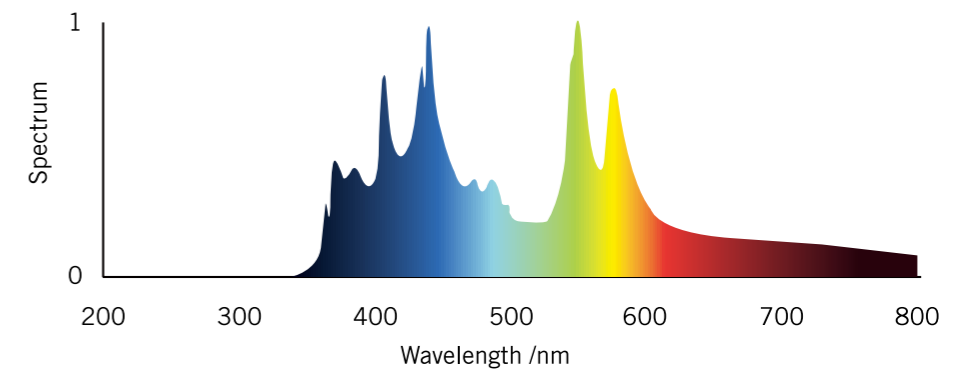
The PX43 FS6 supports not only traditional mercury fluorescent lamps, but also Motic LED fluorescent lamps, LUMOS3, and metal halide fluorescent lamps, LUMOS X.

- **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



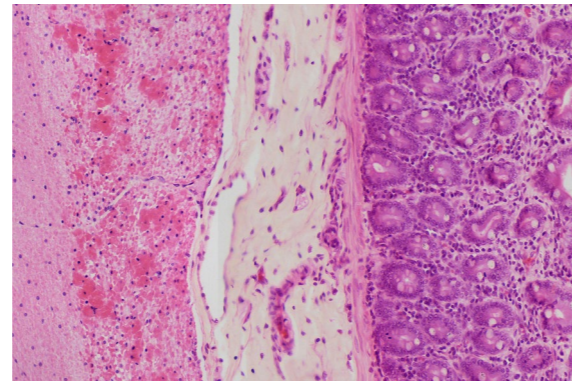


## Multiple Observation Types

The PX43 series combines advanced optical performance with innovative mechanical design to support a wide range of applications in biology, histology, microbiology, immunology, and medicine. Its flexible configurations meet the diverse observation needs of users across multiple disciplines.

### Brightfield (BF)

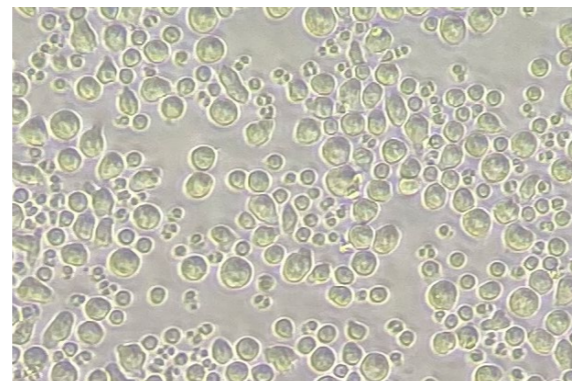
The newly designed long working distance Plan objectives feature multi-layer wideband coating technology, significantly enhancing image contrast and delivering sharp, high-quality images.



Smooth Muscle

### Phase Contrast (PH)

Ideal for observing living, unstained cells, phase contrast imaging reveals fine cellular details with clarity. The PX43 supports a range of high-performance Plan UC and Plan Fluor phase contrast objectives, which work in conjunction with phase contrast inserts to deliver outstanding imaging performance.

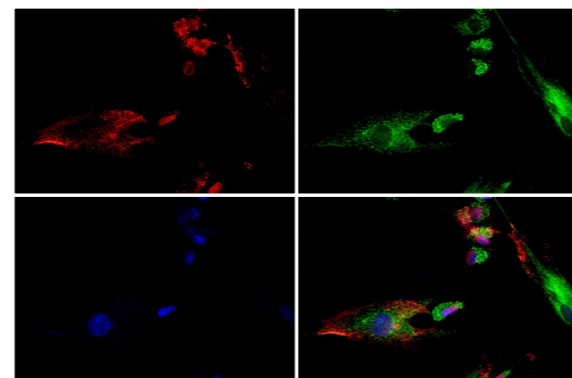


Primary T cells

### Fluorescence (FL)

Plan UC Fluor fluorescence objectives are crafted using low short-wavelength absorption optical materials, greatly improving transmittance of various excitation wavelengths, including UV.

High-performance Plan UC Fluor fluorescence-phase contrast objectives enable both fluorescence and phase contrast imaging in one setup, providing high brightness, excellent resolution, and superior contrast for detailed fluorescence observations.



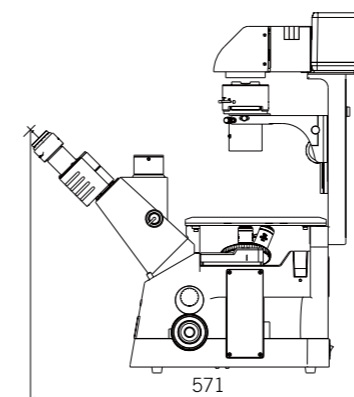
C2C12 cells

## Specifications

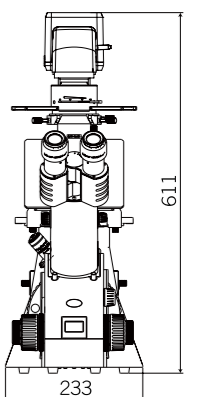
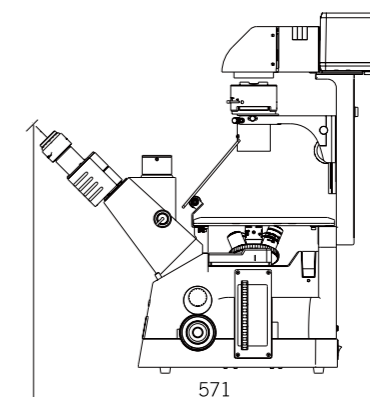
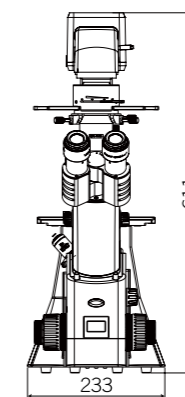
Model	PX43 BIO	PX43 FS6
Optical System	CCIS Infinitely Corrected Optical System	
Observations	BF, PH	BF, PH, FL
Transmitted Light Illuminator	10W LED 50W halogen illuminator	
Fluorescence light source	-	100W mercury lamps Metal halide fluorescent lamps LUMOS X LED fluorescent lamp LUMOS3
Observation Tube	45° inclined trinocular tube with 360° rotatable tube (Optional light split ratio 100: 0, 20: 80/100: 0, 0: 100)	
Eyepieces	FN22, 10x/22mm 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, W.D. 12.6 mm Plan Achromat 10x PH1 N.A.0.25, W.D. 10.2 mm LD Plan Achromat 20x PH1 N.A.0.4, W.D. 8.2 mm LD Plan Achromat 40x PH1 N.A.0.55, W.D. 2.0 mm LD Plan Achromat 60x PH2 N.A.0.65, W.D. 2.0 mm	
Objectives	Plan Fluor 4x N.A.0.13, W.D. 17.2 mm Plan Fluor 10x N.A.0.3, W.D. 11.2 mm LD Plan Fluor 20x N.A.0.45, W.D. 5.0 mm LD Plan Fluor 40x N.A.0.65, W.D. 1.3 mm LD Plan Fluor 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 20x PH1 N.A.0.45, W.D. 5.0 mm Plan Fluor LWD 40x PH1 N.A.0.65, W.D. 1.3 mm	
Stage	200mm x 239mm fixed stage with hard coated surface, which can resist 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 Long working distance condenser N.A. 0.5, W.D. 28mm	
Focus	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 (Optional)	Professional image processing software: Motic Analysis Bio	

## Dimensional Diagram (mm)

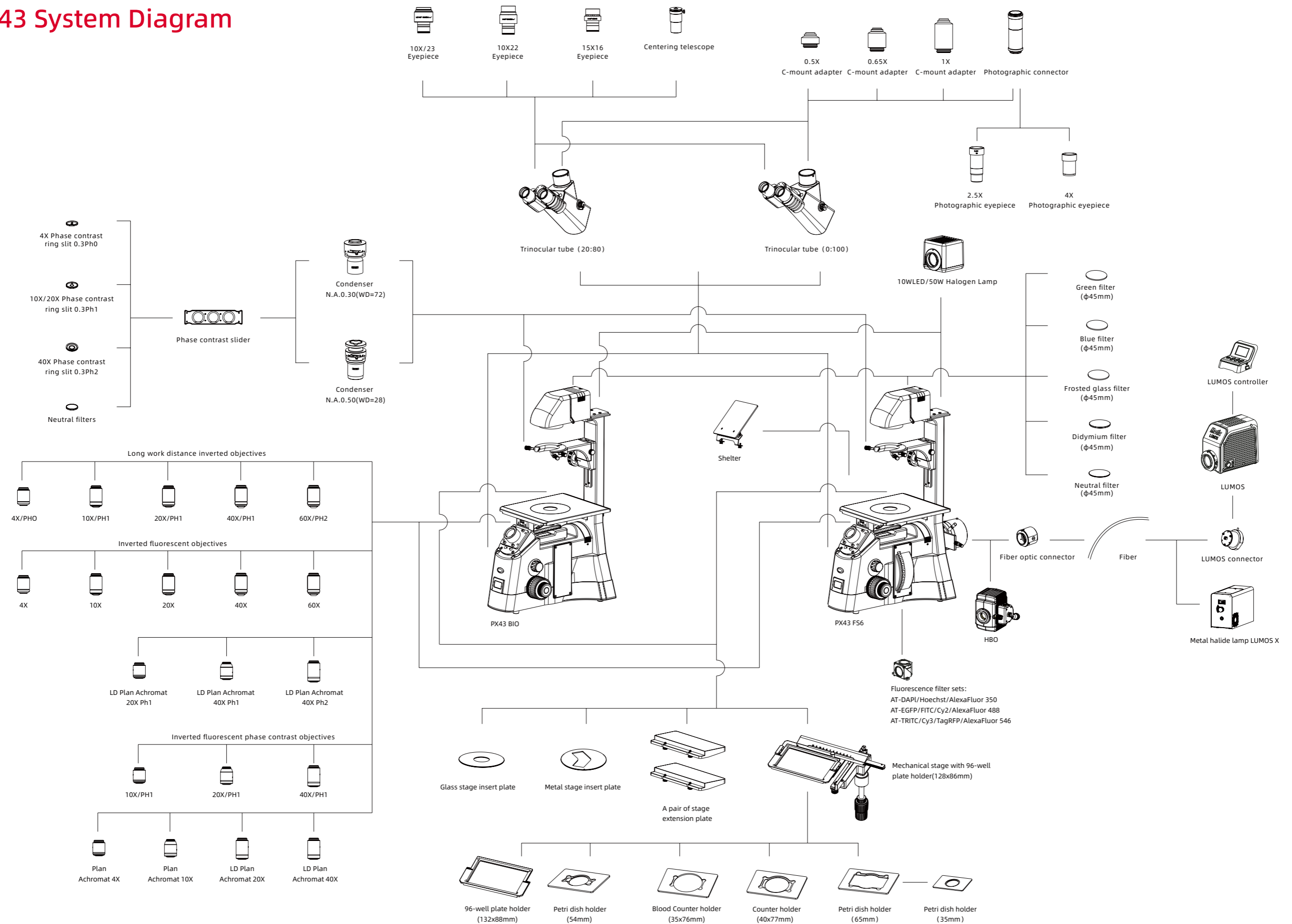
PX43 BIO



PX43 FS6



# PX43 System Diagram



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Design Change: The manufacturer reserves the right to make changes in instrument design in accordance with scientific and mechanical progress, without notice and without obligation.



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Official Distributor: