

**POLARIZING MICROSCOPES**

**XP-607LP**



XP-607LP Transmission & Reflection polarizing microscope is a professional laboratory instrument which is the most commonly used in geology, minerals, material, etc departments, and relative Universities and colleges. For non-transparent or translucent objects, you can adopt both transmission and reflection polarizing observation. With the advancing of optical technology, the application range of polarizing microscope is becoming wider and wider. They are widely used in minerals, chemical industry, semiconductor industry and medicine material testing and so on.

It provides users to do single-polarized light observation, orthogonal polarizing observation, cone-ray observation and microscopic photography. It can also configure attachment like test piece Gypsum  $1\lambda$ , Mica  $1/4\lambda$ , quartz wedge and mechanical stage. It is a good quality instrument with more maturity function.

Specification		607LP	607LPT
Viewing Head	Compensation Free Binocular Head Inclined at 30° (50mm-75mm)	*	
	Compensation Free Trinocular Head Inclined at 30° (55mm-75mm)		*
Eyepiece	WF10X/22mm, Gridding Eyepiece, Cross Eyepiece, Reticule Eyepiece	*	*
Objective	Stress-free infinity plan-achromatic metallurgical Objective: 4X 10X 20X 40X 60X	*	*
	Stress-free Infinity Plan-achromatic Objective: 4X 10X 20X 40X 60X		
Stage	Rotary Stage, Stage Size:172mm, Moving Range:360°	*	*
Condenser	Swing type N.A.1.25 Abbe condenser with iris diaphragm	*	*
Filter	Inserting type filter(green, blue, neutral)	*	*
Testing Piece	Gypsum $1\lambda$ testing piece, Mica $1/4\lambda$ , Quartz wedge testing piece	*	*
Focusing	Coaxial coarse & fine focusing adjustment With rack and pinion Mechanism Fine focusing scale value 0.002mm	*	*
Illuminator	High brightness fixed illumination	*	*
Light Source	Upper illumination: Halogen bulb12V/30W,AC85V-230V, adjustable brightness	*	*
	Down illumination: Halogen bulb12V/30W,AC85V-230V, adjustable brightness		
Checking Tool	0.01mm Micrometer	*	*

**XPL-3230**



XPL-3230 transmitted & reflected polarization microscopes are utilized polarize light to observe and research the matter which have double refraction features, the user can make single polarizing observation, orthoscopic observation, conoscopic observation. They are applied in geology, chemicals, physic and leechdom fields. They are also widely used to observe the crystal of liquid macromolecule polymer, biomedical polymer and liquid crystal. They are the ideal instruments for scientific research and universities teaching demo.

**Features:**

1. Equipped with infinity plan objectives (strain-free) and wide field eyepiece
2. Coaxial coarse/fine focus system with tensional adjustable and up stop, minimum division of fine focusing: 2μm
3. Rotatable stage, 360° graduated in 1° increments, minimum retardation resolution 6´ center adjustable and with tightener, Stage vertical effective movement up to 30mm
4. Wide voltage range power supply (85-265V 47-60HZ), 6V30W halogen lamp, brightness adjustable

**Standard Configuration:**

Model		XPL-3230
Eyepiece		Wide field WF10X /20mm, Division eyepiece 10X /20mm 0.10mm/div
Infinity objective		Strain-free plan achromatic objective (no cover glass) PL5X/0.12, PL L10X/0.25, PL L40X/0.60(S), PL L60X/0.75 (S)
Eyepiece tube		Trinocular, Inclination of 30°, can send 100% of the image light to top photography port
Intermediate attachmen		Built-in bertrand lens
Reflected illumination	Polarizer	360° rotatable
	Analyzer	360° rotatable with scale and minimum vernier
	Illumination	6V 30W, halogen lamp, adjustable brightness
Transmitted illumination	Polarizer	360° rotatable, have 0, 90, 180, 270 four scale
	Collector	For halogen lamp illumination
	Illumination	6V 30W, halogen lamp, adjustable brightness
	condenser	N.A.1.25 Abbe condenser, Rack & pinion adjustable
Compensator		λcompensator, λ/4 compensator, Quarts wedge compensator
Focus system		Coaxial coarse/fine focus, with tension adjustable and up stop, min. division of fine focusing: 2μm.
Nosepiece		Quadruple(Backward ball bearing inner locating)
Stage		Rotatable stage, Diameter Φ150mm, 360° graduated (in 1° increments), minimum retardation resolution 6´ center adjustable and with tightener

**Optional accessories:**

Name	Sort/Technique parameter
Eyepiece	Wide field eyepiece WF16X/11mm
Infinity objective	Strain-free plan achromatic objective(no cover glass) PL L20X/0.40
	Strain-free plan achromatic objective(no cover glass) PL L80X/0.80
Nosepiece	Quintuple(Backward ball bearing inner locating)
Slide moving holder	Moving range: 30mmX25mm
CCD adapter	0.4X, 0.5X, 1X, 0.5X with dividing 0.1mm/Div
Digital camera adapter	CANON (A610, A620, A630, A640)
Photograph unit	2.5X/4X Change over photograph attachment with 10X viewing eyepiece
	4X Focusing photograph attachment
	MD Adapter
	PK Adapter
	EF Adapter

**XPL-1500 SERIES**



XPL-1500

**Transmitted polarization**



XPL-1530

**Reflected & Transmitted polarization**



XPL-1503

**Reflected polarization**

XPL-1500 series transmitted and reflected polarization microscopes are utilized polarize light to observe and research the matter which have double refraction features, the user can make single polarizing observation, orthoscopic observation, conoscopic observation. They are applied in geology, chemicals, physic and leechdom fields. They are also widely used to observe the crystal of liquid macromolecule polymer, biomedical polymer and liquid crystal. They are the ideal instruments for scientific research and universities teaching demo.

**Features:**

1. Transmitted, Reflected, transmitted/reflected illumination can be choosn
2. Equipped with strain-free plan objectives (center adjustable) and wide field eyepiece
3. Coaxial coarse/fine focus system with tensional adjustable and up stop, minimum division of fine focusing: 2μm
4. Rotatable stage, 360° graduated in 1° increments, minimum retardation resolution 6´ center adjustable and with tightener Stage vertical effective movement up to 30mm
5. Wide voltage range power supply (85-265V 47-60HZ), 6V20W halogen lamp, brightness adjustable

**Optional accessories:**

Name	Sort/Technique parameter
Eyepiece	Wide field WF16X/11mm
Objective (center adjustable)	Strain-free plan achromatic objective(cover glass:0.17mm) PL20X/0.40, PL 00X/1.25 (Oil ,S)
	Strain-free plan achromatic objective(no cover glass) PL L20X/0.40, PL L50X/0.70, PL L80X/0.80
	Strain-free plan achromatic objective (Dry) (no cover glass) PL L100X/0.85 (S)
Nosepiece	Quadruple (Frontward ball bearing inner locating) adjust the center of objective
Slide moving holder	Moving range: 30mmX25mm
CCD adapter	0.4X, 0.5X, 1X, 0.5X with dividing 0.1 mm/Div
Photo unit	2.5X/4X Change over photograph attachment with 10X viewing eyepiece
	4X Focusing photograph attachment
	MD Adapter
	PK Adapter
Digital camera adapter	CANON (A610, A620, A630, A640)

**Standard Configuration:**

Model		XPL-1500 (Transmitted illumination)	XPL-1530 (Transmitted & reflected illumination)	XPL-1503 (Reflected illumination)
Eyepiece		Wide field WF10X /18mm		
		Division eyepiece 10X /18mm 0.10mm/div		
Objective (center adjustable)		Strain-free plan achromatic objective (cover glass:0.17mm) PL4X/0.10	Strain-free plan achromatic objective (no cover glass) PL5X/0.12	
		Strain-free plan achromatic objective (cover glass:0.17mm) PL10X/0.25	Strain-free plan achromatic objective (no cover glass) PL L10X/0.25	
		Strain-free plan achromatic objective(cover glass:0.17mm) PL 40X/0.65 (S)	Strain-free plan achromatic objective (no cover glass) PL L40X/0.60 (S)	
		Strain-free plan achromatic objective(cover glass:0.17mm) PL 60X/0.85 (S)	Strain-free plan achromatic objective (no cover glass) PL L 60X/0.75 (S)	
Reflected illumination	Polarizer			Rotatable
	Illumination			6V 20w, halogen lamp, adjustable brightness
Transmitted illumination	Polarizer	360° rotatable, have 0, 90, 180, 270 four scale		
	Collector	For halogen lamp illumination		
	Illumination	6V 20W, halogen lamp, adjustable brightness		
	Condenser	N.A.1.25 Abbe condenser, Rack & pinion adjustable		
Eyepieces tube		Trinocular, Inclination of 30°, can send 100% of the image light to top photography port		
Intermediate attachment		Built-in analyzer, can switch to normal observe or polarizing observe freely ,90° rotatable with scale, minimum retardation resolution 12'		
		Bertrand lens, impellent style , center adjustable		
		$\lambda$ compensator		
		$\lambda/4$ compensator		
Nosepiece		Quadruple (Frontward ball bearing inner locating)		
Focus system		Coaxial coarse/fine focus system, with tension adjustable and limit stopper, minimum division of fine focusing: 2 $\mu$ m		
Stage		Rotatable stage, Diameter $\Phi$ 150mm, 360° graduated (in 1° increments), minimum retardation resolution 6' center adjustable and with tightener		

**XP-146P 501**



**XP-501**



**XP-501T**



**XP-146P**

Model XP-501 Transmission Polarizing microscope is one of the most professional instruments, in common use, for Geological, Mineral, Metallurgical departments and relative Academy.

Recent years, with the development of optical technology, the Polarizing microscope is in widely use. Transmission Polarizing microscope is a very suitable product. The user can make single polarizing view, orthogonal polarizing view, cone light view and micro-photograph. The microscope is equipped with attachment, such as gypsum( $\lambda$ ),mica(1/4) test piece, quartz wedge and attachable mechanical stage. It is a novel microscope with maturity function and nicer quality

Specification		501	501T	146P
Viewing head	Sliding binocular head. Inclined at 45° (52mm -74mm)	*		
	Sliding trinocular head. Inclined at 30° (52mm -74mm)		*	
	Compensation free trinocular head. Inclined at 30° (52mm -74mm)			*
Eyepiece	WF10X /18mm	*	*	
	10X gridding eyepiece	*	*	*
	10X with reticule	*	*	*
	WF10X /22mm			*
Objective	Achromatic objective: 4X, 10X, 25X, 40X (S), 63X(S)	*	*	
	ISO infinity achromatic objective: 4X, 10X, 25X, 40X (S), 63X(S)			*
Stage	Round revolving stage, Stage dia: $\Phi$ 160mm, Rotatable: 360°	*	*	*
Condenser	Swing type N.A1.25 Abbe condenser with iris diaphragm & filter	*	*	*
Focusing	Coaxial coarse & fine focusing adjustment with rack and pinion mechanism. Fine focusing scale Value 0.002mm	*	*	*
Collector	High brightness light collector	*	*	*
Light source	Halogen tungsten bulb 6V/30W. AC 85V-230V, adjustable brightness	*	*	*

**XP-148P SERIES**



**XP-148P**



**XP-148PL**



**XP-148PHT**

Transmission polarizing microscope is a professional laboratory instrument which is the most commonly used in geology, minerals, metallurgy, material, etc, departments, and relative Universities and colleges. In recent years, with the advancing of optical technology, the polarizing microscope, as optical instrument, is to be used wider and wider, Transmission polarizing microscope is very suitable product which provides users to do single-polarized light observation, orthogonal polarizing observation, cone-ray observation and microscopic photography. It can also configure attachment like test piece of gypsum  $1\lambda$ , mica  $1/4\lambda$ , quartz wedge and mechanical stage, It is a high quality novel instrument with more maturity functions.

Specification		148P	148PL	148PLT	148PH	146PHT
Viewing head	Sliding trinocular head. Inclined at 30° (50mm-75mm)	*			*	
	Compensation free binocular head Inclined at 30° (50mm-75mm)		*			
	Compensation free trinocular head. Inclined at 30° (50mm -75mm)			*		*
Eyepiece	WF10X /20mm		*	*		
	10X gridding eyepiece	*	*	*	*	*
	10X with reticule	*	*	*	*	*
	WF10X /22mm	*			*	*
Nosepiece	Quintuple Nosepiece with centering adjustable	*	*	*	*	*
Objective	Achromatic objective: 4X, 10X, 25X, 40X (S), 63X(S)	*				
	Stress-free infinity achromatic objective: 4X, 10X, 25X, 40X (S), 63X(S)		*	*		
	Stress-free Infinity Plan Objectives: 4X, 10X, 25X, 40X (S), 60X(S)				*	*
Stage	Round revolving stage, Stage dia: $\Phi$ 160mm, Rotatable: 360°	*				
	Round revolving stage, Stage dia: $\Phi$ 172mm, Rotatable: 360°		*	*	*	*
Condenser	Swing type N.A1.25 Abbe condenser with iris diaphragm & filter		*	*	*	*
Testing Piece	Gypsum $1\lambda$ testing piece, Mica $1/4\lambda$ , Quartz wedge testing piece	*	*	*	*	*
Focusing	Coaxial coarse & fine focusing adjustment with rack and pinion mechanism. Fine focusing scale Value 0.002mm	*	*	*	*	*
Illuminator	High brightness fixed illumination	*	*	*	*	*
Light source	Halogen tungsten bulb 6V/30W.AC 85V-230V, adjustable brightness	*	*	*	*	*
Checking Tool	0.01mm Micrometer	*	*	*	*	*

**YJ-2009**



<b>SPECIFICATION</b>	
Viewing head	Articulated Free Binocular Head, Inclined at 30°, 360° Rotatable The Adjustable Height range of the Vertical Tube: 10mm
Eyepiece	Wide Field Plane-Scope Eyepiece: WF10X/18, WF16X/13
Objective	Achromatic Objective 4X, 10X, 40X(S), 100X(S) Oil (or Infinity System Strain free Plane-scope Achromatic Objective 5X, 10X, 40X)
Stage	Double Layers Mechanical stage 140X155mm, Moving range: 50X70mm Round Stage: Φ160mm. 360° Rotatable and Graduated 1° Increments, Minimum Resolution 6' When Using Venire Scale Center Adjustable
Intermediate attachment	Rotatable Analyzer with Graduation 0° - 90°, Sliding out of Optical Path Bertrand Lens, Sliding out of Optical Path Optical Compensator: λSlip (first class red), 1/4λSlip, Quartz Wedge Compensator
Diaphragm	Φ2mm-Φ30mm iris diaphragm and Φ32mm filter
Condenser	Abbe NA 1.25 condenser with Iris Diaphragm & Filter
Polarizer	Under the Stage, 0° Adjustable 360° Rotatable
Focusing	Coaxial Coarse And Fine Focusing Adjustable Mechanism: 30mm, Precision: 0.002mm
Power	Built-in Adjustable Brightness Halogen lamp 6V/20W (or 3.5V/1W LED Lamp), Kohler illumination

**XPL-1 SERIES**



XPL-1 series polarization microscopes are utilized polarize light to observe and research the matter which have double refraction features, the user can make single polarizing view, orthogonal polarizing view, cone light view. They are applied in geology, chemicals, physic and leechdom fields. They are also widely used to observe the crystal of liquid macromolecule polymer, biomedical polymer and liquid crystal. They are the ideal instruments for scientific research and universities teaching demo.

**Features:**

1. Equiped with strain-free plan achromatic objectives or infinity strain-free plan achromatic objectives and wide field eyepiece
2. Nosepiece can adjust the center of objective
3. Coaxial coarse/fine focus system with tensional adjustable and up stop, minimum division of fine focusing: 2μm
4. Take-down style polarizer, 360° rotatable, have 0, 90, 180, 270 four scale, located down the aperture diaphragm
5. Impellent style analyzer, 360° rotatable, push in / out from optical path conveniently
6. Revolving round stage, 360° part scale and graduated in 1° increments, minimum resolution 6´ when using vernier scale, center adjustable and with tightener
7. Illumination with 6V20W halogen lamp, adjustable brightness

**Optional accessories**

Name	Sort/Technique parameter
Eyepiece	Wide field WF16X/11mm
Eyepieces tube	Binocular, Inclination of 30°
Objective	Strain-free plan achromatic PL5X/0.12, PL20X/0.40, PL60X/0.85 (S)
	Infinity strain-free plan achromatic PL4X/0.10, PL20X/0.40
Nosepiece	Quintuple(Frontward ball bearing inner locating)
Filter	Green filter, Yellow filter
CCD adapter	0.4X, 0.5X, 1X, 0.5X with dividing 0.1mm/Div
Photo unit	2.5X/4X Change over photograph attachment with 10X viewing eyepiece
	4X Focusing photograph attachment
	MD Adapter
	PK Adapter
Digital camera adapter	CANON(A610, A620, A630, A640)

**Standard configuration:**

Model	XPL-1	XPL-1A
Eyepiece	Wide field WF10X/18mm	
	Division eyepiece 10X/18mm 0.1mm/Div	
Objective	Strain-free plan achromatic PL 4X/0.10	Infinity strain-free plan achromatic PL4X/0.10
	Strain-free plan achromatic PL 10X/0.25	Infinity strain-free plan achromatic PL10X/0.25
	Strain-free plan achromatic PL40X/0.65(S)	Infinity strain-free plan achromatic PL40X/0.65(S)
	Strain-free plan achromatic PL100X/1.25(S, oil)	Infinity strain-free plan achromatic PL100X/1.25(S, oil)
Eyepieces tube	Trinocular, ,inclination of 30°, 100% image light for photography capable	
Intermediate attachment	360° rotatable with scale and minimum vernier	
	Bertrand lens ,impellent style, center adjustable	
	$\lambda$ compensator, $\lambda/4$ compensator, Quarts wedge compensator	
Focus system	Coaxial coarse/fine focus system, with tension adjustable & up stopper, min. division of fine focusing: 2 $\mu$ m.	
Nosepiece	Quadruple (Frontward ball bearing inner locating)	
Stage	Rotatable stage, Diameter $\Phi$ 150mm, 360° graduated (in 1° increments), minimum retardation resolution 6' center adjustable and with tightener	
Condenser	NA.1.25 Abbe condenser, Rack & pinion adjustable	
Polarizer	360° rotatable, with four scale is 0°, 90°, 180°, 270°	
Filter	Frosted filter, Blue filter	
Collector	For illumination with halogen lamp (With field diaphragm)	
Illumination	With polarizer, 6V 20W halogen lamp, adjustable brightness	

## XPL-2



**XPL-2** series polarization microscopes are utilized polarize light to observe and research the matter which have double refraction features, the user can make single polarizing view, orthogonal polarizing view, cone light view. They are applied in geology, chemicals, physic and leechdom fields. They are also widely used to observe the crystal of liquid macromolecule polymer, biomedical polymer and liquid crystal.

### Features:

1. Equipped with strain-free plan achromatic objectives(no cover glass) or infinity strain-free plan achromatic objectives (no cover glass) and wide field eyepiece
2. Nosepiece can adjust the center of objective
3. Coaxial coarse/fine focus system with tensional adjustable and up stop, minimum division of fine focusing: 2 $\mu$ m
4. Take-down style polarizer, 360° rotatable, have 0, 90, 180, 270 four scale, located down the aperture diaphragm
5. Impellent style analyzer, 360° rotatable, push in / out from optical path conveniently
6. Revolving round stage, 360° part scale and graduated in 1° increments, minimum resolution 6' when using vernier scale, center adjustable and with tightener
7. Illumination with 6V20W halogen lamp, adjustable brightness

### Standard configuration:

Model	XPL-2
Eyepiece	Wide field WF10X/18mm, Division eyepiece 10X/18mm 0.1mm/Div
Objective	Strain-free plan achromatic(no cover glass) PL L4X/0.10, PL L10X/0.25, PL L40X/0.60, PL L60X/0.75(S)
Eyepiece tube	Trinocular, ,inclination of 30°, 100% image light for photography capable
Intermediate attachmen	Polarization analyzer, 360° rotatable with scale and minimum vernier
	Bertrand lens ,impellent style, center adjustable
	$\lambda$ compensator, $\lambda/4$ compensator, Quarts wedge compensator
Focus system	Coaxial coarse/fine focus system, with tension adjustable and up stop, min division of fine focusing: 2 $\mu$ m
Nosepiece	Quadruple (Frontward ball bearing inner locating)
Stage	Rotatable stage, Diameter $\Phi$ 150mm, 360° graduated (in 1° increments), minimum retardation resolution 6' center adjustable and with tightener
Condenser	NA.1.25 Abbe condenser, Rack & pinion adjustable
Polarizer	360° rotatable, with four scale is 0°, 90°, 180°, 270°
Filter	Frosted filter, Blue filter
Collector	For illumination with halogen lamp With field diaphragm
Illumination	With polarizer,6V 20W halogen lamp, adjustable brightness

## JPL-1350 SERIES



JPL1350 series polarization microscopes are utilized polarize light to observe and research the polarize characteristic of the matter which have the double refraction .They can be used to medical inspection, such as the frame detail of the nerve fibre, the animal muscle, the plant fibre and the crystal of the tooth, bone, hair and alive cell etc. It can be observe the fine frame of the biochemistry salt crystal that the fine frame can't be observe for nature light.

### Features:

Equipped with wide field eyepieces and achromatic objectives, the field of view is widely and clear.

Coaxial coarse/fine focus system, with tensional adjustable and up stop, minimum division of fine focusing: 2 $\mu$ m.

6V 20W halogen lamp transmission illumination brightness control.

### Standard Configuration:

Model	JPL1350	JPL1350A
Eyepiece	Wide field WF10X/18mm	
Objective	Achromatic objectives 4X/0.10	
	Achromatic objectives 10X/0.25	
	Achromatic objectives 40X/0.65 (S)	
	Achromatic objectives 100X/1.25(S, oil)	
Eyepieces tube	Binocular, Inclination of 30°	
Polarization analyzer	Sliding	
Focus system	Coaxial coarse/fine focus system, with tensional adjustable and up stop, minimum division of fine focusing: 2 $\mu$ m.	
Nosepiece	Quadruple (Backward ball bearing inner locating)	
Stage	Rotatable stage(Diameter:Φ120mm)	Double layer mechanical stage with (Φ100mm) rotatable stage (Size: 135mmX125mm Moving range: 75mmX35mm)
Condenser	NA.1.25 Abbe condenser, Rack & pinion adjustable	
Filter	Blue filter, Frosted filter	
Polarizer	360° rotatable stage	
Collector	For illumination with halogen lamp With field diaphragm	
Illumination unit	With polarizer,6V 20W halogen lamp, adjustable brightness	