

Polarizing Microscopes

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1. BS-5040 Polarizing Microscope



BS-5040B



BS-5040T

Introduction

The BS-5040 transmitted polarizing microscopes are equipped with a smooth, rotating, graduated stage and a set of polarizers that allow observation of all types of transmitted light polarized specimens such as thin sections of minerals, polymers, crystals and particulates. It is equipped with an infinite optical system, a comfortable viewing head and a set of Strain-free Infinite Plan Objectives which offers a magnification range of 40X – 400X. Digital camera can be used together with BS-5040T for image analysis.

Feature

1. Perfect optical system

Excellent infinite optical system with high resolution and perfect definition. High resolution and perfect definition from infinity correct optical system.

2. Infinity stain-free plan objective

Infinite strain-free plan objectives, ensuring excellent resolution and clarity.

3. Nosepiece and stage

Center adjustable nosepiece and rotating stage make the operation more accurate and reliable.

4. Viewing head



Brand new and humanized butterfly binocular head-tubes can be 360° rotated to raise observing height than normal tubes to be more convenient for users with different height.

5. Power supply



5V-12V low voltage input to ensure safe use.
Power bank can be used for power supply, more convenient for field inspection and power-short condition

Application

The BS-5040 series polarizing microscopes are specifically designed for geology, minerals, metallurgy, university teaching laboratories and other sectors. They also can be used in chemical fiber industry, semiconductor industry and the pharmaceutical inspection industry.

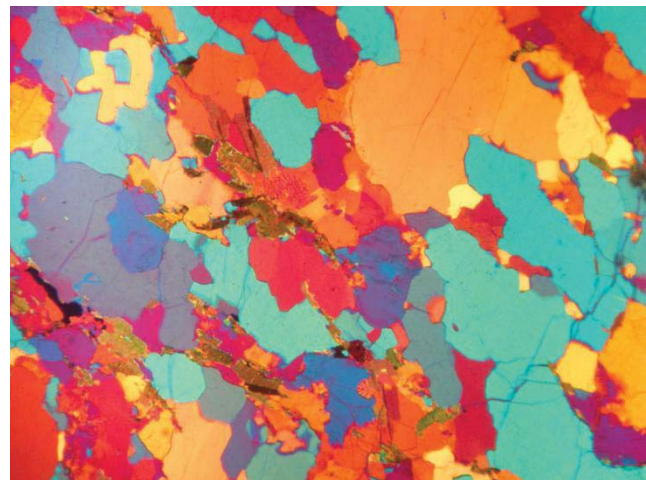
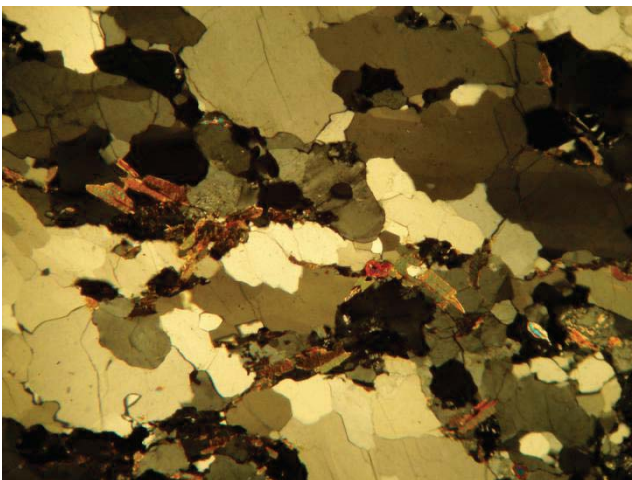
Specification

Item	Specification	BS-5040B	BS-5040T	
Optical System	Color Corrected Infinite Optical System	•	•	
Viewing Head	Inclined 30° binocular tube, 360° rotatable, interpupillary distance: 48-75mm	•		
	Inclined 30° trinocular tube, 360° rotatable, interpupillary distance: 48-75mm, splitting ratio: eyepiece: trinocular=20:80		•	
Eyepiece	High eyepoint wide field eyepiece WF10X/20mm	•	•	
	High eyepoint wide field eyepiece WF10X/20mm, focusing adjustable, with reticule 0.1mm	•	•	
Objective	Strain-free Infinite Plan Objective	4X/ NA 0.10, WD=12.1mm	•	•
		10X/ NA 0.25, WD=4.64mm	•	•
		20X/ NA 0.40 (S), WD=2.41mm	•	•
		40X/ NA 0.66 (S), WD=0.65mm	•	•
		60X/ NA 0.80 (S), WD=0.33mm	○	○
	(Oil) 100X/ NA 1.25 (S), WD=0.12mm	○	○	
Nosepiece	Quadplex nosepiece, center adjustable	•	•	

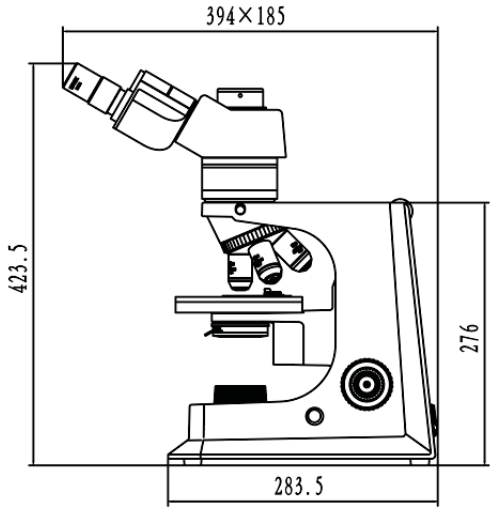
Focusing	Coaxial coarse & fine focusing knobs, travel range: 26mm, scale:2um	●	●
Analyzing Unit	0-90°, it can be moved out of the optical path for single polarizing observe	●	●
Bertrand Lens	It can be moved out of the optical path	●	●
Optical Compensator	λ Slip, first class red	●	●
	1/4 λ Slip	●	●
	(I -IV Class) Quartz wedge	●	●
Stage	Revolving round stage, rotatable 360°, division 1°, vernier division 6', can be locked. Diameter Φ 142mm.	●	●
	Polarizing attached mechanical stage	○	○
	Polarizing attached mechanical stage, thinner, does not affect the rotation of the objective lens	○	○
Condenser	Abbe condenser NA 1.25, stain-free	●	●
Polarizing Unit	Under the condenser, with scale rotatable 360°, can be locked and can be moved out of the optical path	●	●
Illumination	5W LED lamp, warm color, input voltage: 100V-240V	●	●
	12V/30W Halogen lamp	○	○
Filter	Blue filter (Φ 45)	○	○
	Amber filter (Φ 45)	○	○
	Green filter (Φ 45)	○	○
	Neutral filter (Φ 45)	○	○
C-mount	0.5X C-mount adapter, adjustable focus		●
	0.75X C-mount adapter, adjustable focus		○
	1X C-mount adapter, adjustable focus		○
	Trinocular digital eyepiece interface		○
Package	1pc/carton, 57×27.5×45cm, Gross Weight: 8.6kgs, Net Weight: 7.5kgs	●	●

Note: ● Standard outfits, ○ Optional.

Sample Image



Dimension



Unit: mm

2. BS-5062 Polarizing Microscope



BS-5062B



BS-5062BR



BS-5062BTR



BS-5062T



BS-5062TR



BS-5062TTR



BS-5062TTR(LED)

Introduction

BS-5062 series polarizing microscopes feature a highly robust construction and first-class optics to provide a long life and excellent quality images. Accessories like Gypsum slide, Mica slide, Quartz wedge and Mechanical stage are available. The microscopes are specifically designed for geology, minerals and material areas. They also can be used in chemical fiber, semiconductor and pharmaceutical industries.

Feature

1. Perfect optical system

Excellent infinite optical system with high resolution and perfect definition. High resolution and perfect definition from infinity correct optical system. 100X water objective is available for convenient viewing.

2. Viewing head



Professional binocular head can keep the cross in the right-hand eyepiece always same when the eyepiece tubes turned.

3. Analyzer unit



Analyzer, 360° rotatable analyzer with division, can be locked and moved out of the light path. Bertrand lens, built-in, focus adjustable.

4. Nosepiece, stage & polarizing unit



Centering nosepiece, stain-free infinity plan objective.

Rotatable 360° stage, division 1°, vernier division 6', adjustable center which can be locked.

Polarizing unit, 360° rotatable, scaled, can be locked.

5. Mechanical stage, compensator and condenser



POL-Stage1, attached polarizing mechanical stage. Focusing needs to be adjusted first before use, which is inconvenient compared to POL-Stage 2.



POL-Stage2, attached polarizing mechanical stage, professional design for laboratory's user to avoid objective hitting.

Compensator: quartz wedge, first class red slip, $\lambda/4$ slip.

Swing-out condenser, swing the lens in to get excellent image when using high power objective to make observation.

Application

BS-5062 series polarizing microscopes are ideal instrument in geology, petroleum, coal, mineral, chemicals, semiconductor and pharmaceutical inspection fields. They are widely used in academic demonstration and scientific research areas.

Specification

BS-5062B, BS-5062BR, BS-5062BTR

Item	Specification	BS-5062B (LED)	BS-5062BR (LED)	BS-5062BTR (LED)
Optical System	Infinite Optical System	•	•	•
Viewing Head	Inclined 30° binocular tube, 360° rotatable, interpupillary distance: 48-76mm	•	•	•
	Inclined 30° trinocular tube, 360° rotatable, interpupillary distance: 48-76mm, splitting ratio: eyepiece: trinocular=100:0 or 20:80	○	○	○
Eyepiece	Wide field eyepiece WF10X/22mm, adjustable, tube diameter: 30mm	•		
	Wide field eyepiece WF10X/22mm, adjustable, with reticule 0.1mm	•		
	Wide field eyepiece WF10X/20mm, adjustable, tube diameter: 30mm		•	•
	Wide field eyepiece WF10X/20mm, adjustable, with reticule		•	•

	0.1mm				
Objective	Stain-free Infinity Plan Objectives (Transmitted)	4X/ NA 0.10, WD=12.1mm	●		●
		10X/ NA 0.25, WD=4.64mm	●		●
		20X/ NA 0.40 (S), WD=2.41mm	●		●
		40X/ NA 0.66 (S), WD=0.65mm	●		●
		60X/ NA 0.80 (S), WD=0.33mm	○		○
		(Oil) 100X/ NA 1.25 (S), WD=0.12mm	○		○
	Stain-free Infinity Long Working Distance Plan Objectives (Reflected)	5X/ NA 0.15, WD=21.0mm		●	○
		10X/ NA 0.30, WD=20.0mm		●	○
		20X/ NA 0.40, WD=15.0mm		●	○
		50X/ NA 0.55, WD=10.0mm		●	●
(Dry) 100X/ NA 0.85, WD=3.0mm			○	○	
Nosepiece	Quintuple nosepiece, center adjustable	●	●	●	
Analyzer Unit	Rotatable 360°, module type, can be locked	●	●	●	
Bertrand Lens	Bertrand lens, built-in, focus adjustable.	●	●	●	
Optical Compensator	λ slip, first class red	●	●	●	
	1/4 λ slip	●	●	●	
	(I -IV Class) Quartz wedge	●	●	●	
	(I -IV Class) Quartz wedge, lengthened	○	○	○	
Stage	Coaxial coarse and fine focusing knobs, travel range: 25mm, fine stroke per rotation: 0.2mm, fine division: 2 μ m. Revolving round stage, 360° rotatable, can be locked. Division 1°, vernier division 6'. Diameter Φ 174mm.	●		●	
	Coaxial coarse and fine focusing knobs, travel range: 25mm, fine stroke per rotation: 0.2mm, fine division: 2 μ m. Revolving round stage, 360° rotatable, can be locked. Division 1°, vernier division 6'. Diameter Φ 148mm.		●		
	POL-Stage1, Polarizing attached mechanical stage	○	○	○	
	POL-Stage2, Polarizing attached mechanical stage, thinner, does not affect the rotation of the objective lens	○	○	○	
Focusing	Coaxial coarse and fine focusing knobs, travel range: 25mm, fine stroke per rotation: 0.2mm, fine division: 2 μ m.	●	●	●	
Swing-out Condenser	N.A.0.9/0.13 swing-out condenser	●		●	
Polarizing Unit	with scale, 360° rotatable, can be locked	●		●	
Illumination	Reflected illuminator	○	●	●	
	Transmitted illumination: 5W LED lamp, input voltage: 100V-240V	●	○	●	
	Reflected illumination: 5W LED lamp, input voltage: 100V-240V		●	●	
	Transmitted illumination: 12V/30W Halogen lamp, input voltage: 100V-240V	○	○	○	

	Reflected illumination: 12V/50W Halogen lamp, input voltage: 100V-240V		○	○
Filter	Blue filter for transmitted (Φ45)	○		○
	Amber filter for transmitted (Φ45)	○		○
	Green filter for transmitted (Φ45)	○		○
	Neutral filter for transmitted (Φ45)	○		○
	Blue filter for reflected (Φ21)		○	○
	Amber filter for reflected (Φ21)		○	○
	Green filter for reflected (Φ21)		○	○
C-mount	0.5X C-mount adapter, adjustable focus	○	○	○
	0.75X C-mount adapter, adjustable focus	○	○	○
	1X C-mount adapter, adjustable focus	○	○	○
Packing	Packing size 520mm*470mm*285mm, gross weight 12.5kgs, net weight 10kgs	●		
	Packing size 520mm*470mm*430mm, gross weight 15kgs, net weight 11.5kgs		●	
	Packing size 520mm*470mm*430mm, Gross Weight 16kgs, Net Weight 12.5kgs			●

Note: ● Standard Outfit, ○ Optional

BS-5062T, BS-5062TR, BS-5062TTR

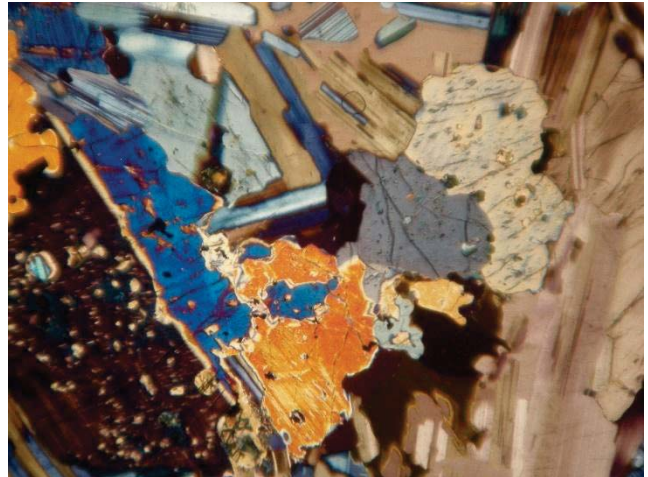
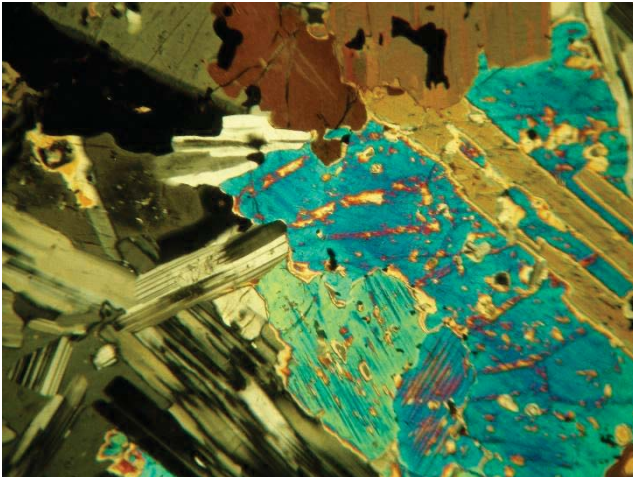
Item	Specification	BS-5062T (LED)	BS-5062TR (LED)	BS-5062TTR (LED)
Optical System	Infinite Optical System	●	●	●
Viewing Head	Inclined 30° binocular tube, 360° rotatable, interpupillary distance: 48-76mm	○	○	○
	Inclined 30° trinocular tube, 360° rotatable, interpupillary distance: 48-76mm, splitting ratio: eyepiece: trinocular=100:0 or 20:80	●	●	●
Eyepiece	Wide field eyepiece WF10X/22mm, adjustable, tube diameter: 30mm	●		
	Wide field eyepiece WF10X/22mm, adjustable, with reticule 0.1mm	●		
	Wide field eyepiece WF10X/20mm, adjustable, tube diameter: 30mm		●	●
	Wide field eyepiece WF10X/20mm, adjustable, with reticule 0.1mm		●	●
Objective	Stain-free Infinity Plan Objectives (Transmitted)	4X/ NA 0.10, WD=12.1mm	●	●
		10X/ NA 0.25, WD=4.64mm	●	●
		20X/ NA 0.40 (S), WD=2.41mm	●	●
		40X/ NA 0.66 (S), WD=0.65mm	●	●
		60X/ NA 0.80 (S), WD=0.33mm	○	○

		(Oil) 100X/ NA 1.25 (S), WD=0.12mm	○		○
	Stain-free Infinity Long Working Distance Plan Objectives (Reflected)	5X/ NA 0.15, WD=21.0mm		●	○
		10X/ NA 0.30, WD=20.0mm		●	○
		20X/ NA 0.40, WD=15.0mm		●	○
		50X/ NA 0.55, WD=10.0mm		●	●
		(Dry) 100X/ NA 0.85, WD=3.0mm		○	○
Nosepiece	Quintuple nosepiece, center adjustable		●	●	●
Analyzer Unit	Rotatable 360°, module type, can be locked		●	●	●
Bertrand Lens	Bertrand lens, built-in, focus adjustable.		●	●	●
Optical Compensator	λ slip, first class red		●	●	●
	1/4λ slip		●	●	●
	(I -IV Class) Quartz wedge		●	●	●
	(I -IV Class) Quartz wedge, lengthened		○	○	○
Stage	Coaxial coarse and fine focusing knobs, travel range: 25mm, fine stroke per rotation: 0.2mm, fine division: 2um. Revolving round stage, rotatable 360°, 360° rotatable, can be locked. Division 1°, vernier division 6'. Diameter Φ174mm.		●		●
	Coaxial coarse and fine focusing knobs, travel range: 25mm, fine stroke per rotation: 0.2mm, fine division: 2um. Revolving round stage, rotatable 360°, 360° rotatable, can be locked. Division 1°, vernier division 6'. Diameter Φ148mm.			●	
	POL-Stage1, Polarizing attached mechanical stage		○	○	○
	POL-Stage2, Polarizing attached mechanical stage, thinner, does not affect the rotation of the objective lens		○	○	○
Focusing	Coaxial coarse and fine focusing knobs, travel range: 25mm, fine stroke per rotation: 0.2mm, fine division: 2um.		●	●	●
Swing-out Condenser	N.A.0.9/0.13 swing-out condenser		●		●
Polarizing Unit	with scale, 360° rotatable, can be locked		●		●
Illumination	Reflected illuminator		○	●	●
	Transmitted illumination: 5W LED lamp, input voltage: 100V- 240V		●	○	●
	Reflected illumination: 5W LED lamp, input voltage: 100V-240V			●	●
	Transmitted illumination: 12V/30W Halogen lamp, input voltage: 100V-240V		○	○	○
	Reflected illumination: 12V/50W Halogen lamp, input voltage: 100V-240V			○	○
Filter	Blue filter for transmitted (Φ45)		○		○
	Amber filter for transmitted (Φ45)		○		○
	Green filter for transmitted (Φ45)		○		○
	Neutral filter for transmitted (Φ45)		○		○
	Blue filter for reflected (Φ21)			○	○

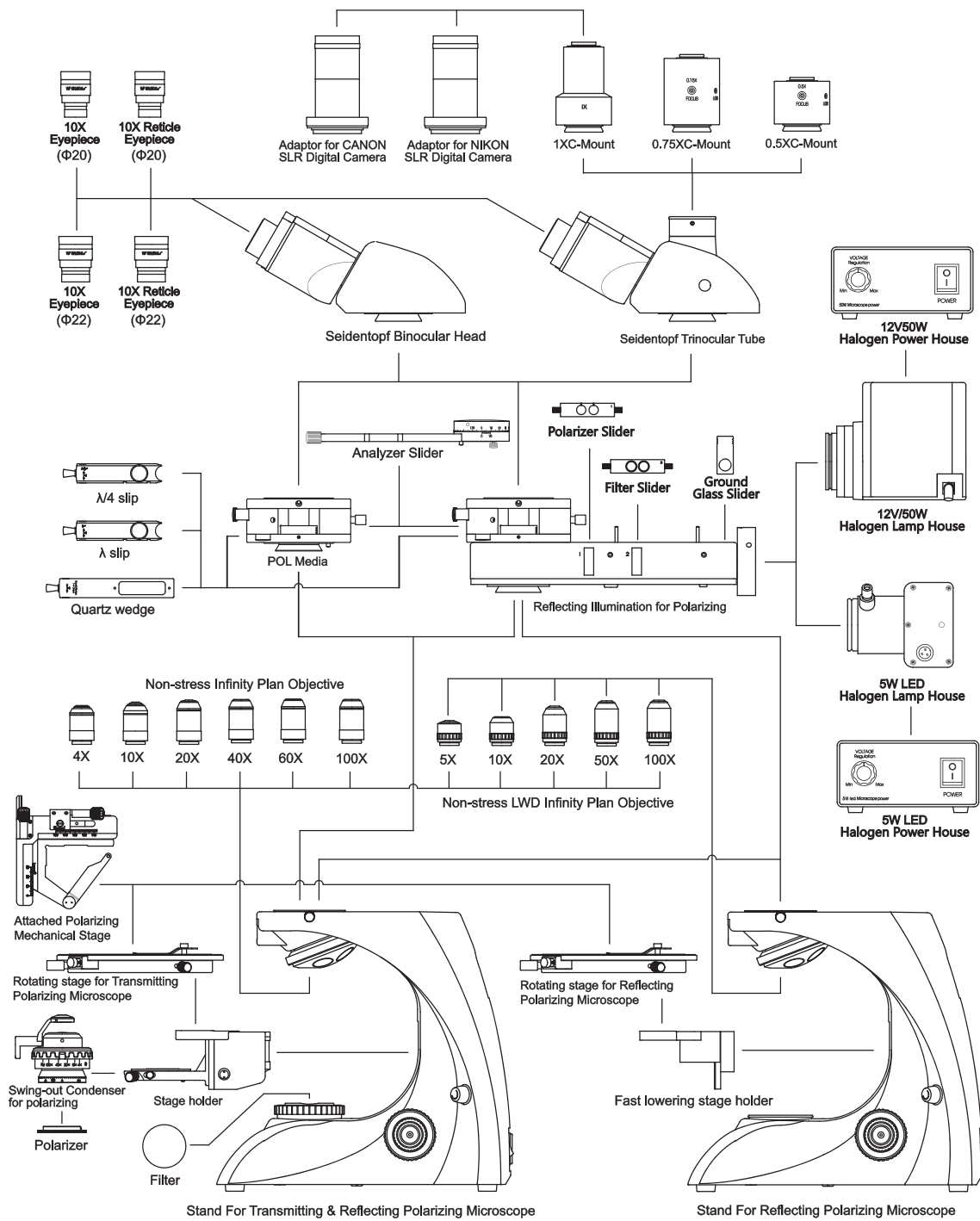
	Amber filter for reflected (Φ21)		○	○
	Green filter for reflected (Φ21)		○	○
	Neutral filter for reflected (Φ21)		○	○
C-mount	0.5X C-mount adapter, adjustable focus	○	○	○
	0.75X C-mount adapter, adjustable focus	○	○	○
	1X C-mount adapter, adjustable focus	○	○	○
Packing	Packing size 520mm*470mm*285mm, gross weight 12.5kgs, net weight 10kgs	●		
	Packing size 520mm*470mm*430mm, gross weight 15kgs, net weight 11.5kgs		●	
	Packing size 520mm*470mm*430mm, Gross Weight 16kgs, Net Weight 12.5kgs			●

Note: ● Standard Outfit, ○ Optional

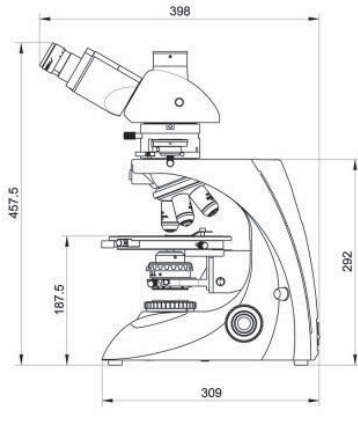
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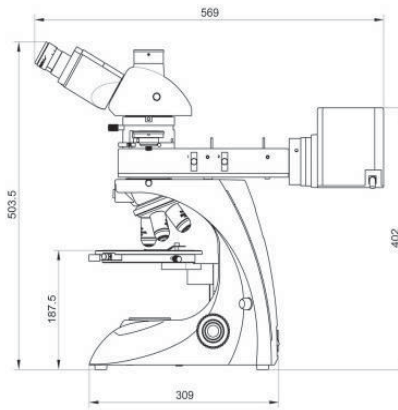
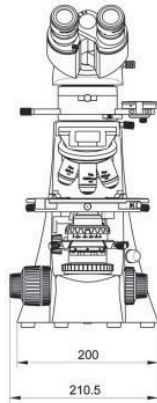
System Diagram



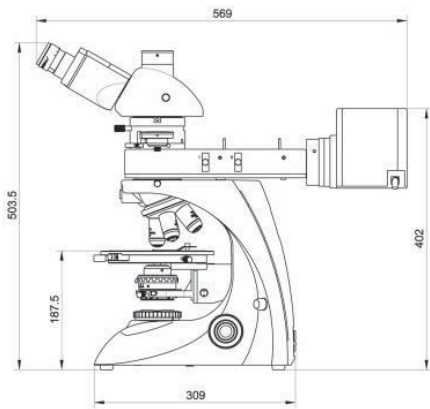
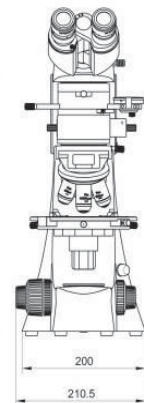
Dimension



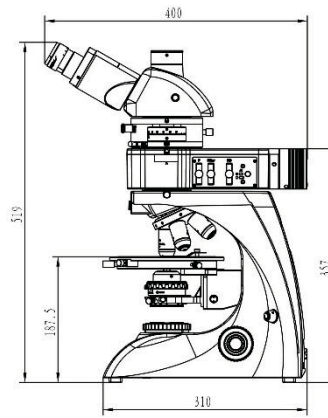
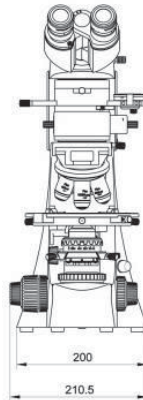
BS-5062T



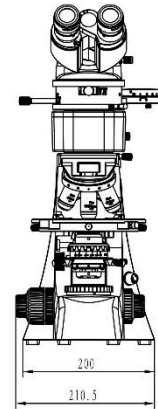
BS-5062TR



BS-5062TTR



BS-5062TTR(LED)



Unit: mm

3. BS-5064 Polarizing Microscope



BS-5064B



BS-5064T



BS-5064TRF



Introduction

New designed BS-5064 improves the destressing imaging system, reflected illumination system and lamp house, resulting in higher polarization and more vivid image. Green manufacture in full operation based on HSF environmental policy. Based on ergonomic designs, the operation is more convenient and comfortable.

Feature

1. Intermediate device for professional conosopic observation



Intermediate device for professional conosopic observation, with internal Bertrand lens with analyzer slot, λ & $\lambda/4$ & quartz wedge attachable. The center of Bertrand lens is adjustable, with rotating switch, cyclic focusing, making it easier to observe interference image. Pluggable analyzer, 360° rotatable, 2° increment, $6'$ precision.

2. Reflected illuminator

Reflected illuminator with polarizer and beam splitter, field and aperture diaphragms adjustable. Pluggable polarizer is removable for natural light observation and easy to be replaced. Removable beam splitter is designed for ensuring that all imaging light can enter the observation tube during transmission observation, improving the image quality under interference and orthogonal polarization.

3. Polarizer bayonet



For polarizing observation, the vibrating axis of the polarizer and analyzer in microscope should be orthogonal. In another word, the east-west vibrating axis and the south-north axis should be in line with the vertical and horizontal scale line of reticle in the eyepiece. Therefore, it is necessary to have a bayonet for fixing the eyepiece with reticle.

4. Large stage

Large circle metal stage, 160mm diameter, 360° rotatable, can be positioned with lock screw at any angle. The stage is anti-corrosive and anti-friction as it is coated with graphite. The scale lines printed by special material can avoid fading or wear-out after long-term operation.

5. Achromatic condenser

N.A 1.2 swing-out achromatic condenser, center adjustable, horizontally insert, vertically adjustable up and down. Adjustable aperture diaphragm with scale remedies the disadvantage of fixed condenser, provides ample uniform light and clear image for different magnification observations.

6. Focusing mechanism

Low position focusing knob for comfortable operation. It is equipped with a coarse and fine adjustment device for elasticity, a coarse and fine adjustment maximum limit device, and a random limit device. The random limit device can be used for quick replacement of slices, protection of slices and objective lenses.

7. Stable frame

Y-shaped frame adopts the design principle of roof. As the main load bearing part, solid column structure eliminates most impact force to ensure stable operation. New designed lamp-house inserts into the concave part on the back as a tail fin, imaginative and beautiful. Surface uses special spray powder, protective, decorative, wear and solvent resistant.

8. Illumination system

New designed reflected and transmitted lamp-house with 12V/50W halogen bulb, the center of the filament is preset. Optimized and upgraded light source spotlight system improve light source efficiency. 100-240V wide voltage system with stable output voltage lengthens the life time of bulbs. The main switch of the electrical system decreases consume in standby.

Specification

BS-5064B, BS-5064T

Item	Specification	BS-5064B	BS-5064T
Optical System	Infinite Color Corrected Optical System	●	●
Viewing Head	30° inclined gemel binocular head, 360° rotatable, interpupillary distance 54-75mm, visual adjustment: ±5 diopter	●	○
	30° inclined gemel trinocular head, 360° rotatable, interpupillary distance 54-75mm, visual adjustment: ±5 diopter, splitting ratio binocular: trinocular=100:0 or 50:50	○	●
	30°-60° tilting binocular head	○	○
Eyepiece	High eye point wide field plan eyepiece PL10X/22mm	●	●
	High eye point wide field plan eyepiece PL10X/22mm, with micrometer	●	●
	High eye point wide field plan eyepiece PL10X/22mm, with reticle	○	○
	High eye point wide field plan eyepiece PL10X/22mm, with gird board	○	○
	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 PL15X/16mm	○	○
Objective	Long Working Distance	5X/NA=0.15, WD=10.8mm	○
	Plan Destressing	10X/NA=0.3, WD=12.2mm	○
	Objectives	20X/NA=0.45, WD=4.0mm	○

Plan Destressing Objectives	50X/NA=0.55, WD=7.9mm	○	○
	4X/NA=0.1, WD=15.0mm, CG=0.17mm	●	●
	10X/NA=0.25, WD=10.8mm, CG=0.17mm	●	●
	20X/NA=0.4, WD=1.5mm, CG=0.17mm	○	○
	40X/NA=0.65, WD=0.8mm, CG=0.17mm	●	●
	60X/NA=0.85, WD=0.3mm, CG=0.17mm	●	●
Nosepiece	Center adjustable quadruple nosepiece	●	●
	Center adjustable quintuple nosepiece	○	○
Intermediate Device	Intermediate device with removable internal Bertrand lens, analyzer and compensators. Built in Brewster lens, turntable switching mechanism (center and focal length adjustable).	●	●
	Gyps 1λ (Φ18mm, optical path difference 551nm)	●	●
	Mical 1/4λ (Φ18mm, optical path difference 147.3nm)	●	●
	Quartz Wedge (I -IV)	●	●
Microscope Body	Transmitted frame with low position coaxial focusing mechanism, coarse range: 30mm, fine precision 0.002mm, with upper limited and tension adjustment.	●	●
Illumination	Wide-range voltage 100V-240V, 12V/50W halogen lamp house for transmitted, center presetting,	●	●
	Halogen light, 12V/50W	●	●
Stage	Circular metal stage, graphite coating, anti-corrosive and anti-friction, diameter 160mm, 360° rotatable, 1° increment, precision 6', with locking device	●	●
	2 clips	○	○
	Mechanical stage, moving range: 30mmX40mm	○	○
Condenser	Swing-out achromatic condenser (N.A 0.9)	●	●
Polarizer & Analyzer	Polarizer and analyzer for transmitted. Pluggable analyzer, 360° rotatable, grid value: 2°, accuracy 6', with locking device. Polarizer, 360° rotatable, with four scales of 0, 90, 180 and 270.	●	●
Filters	Yellow color filter (Φ45)	○	○
	IF55 filter (Φ45)	○	○
	LBD filter (Φ45), only for halogen lamps	●	●
	neutral filter (Φ45)	○	○
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	Electronic eyepiece connector	●	●
	High precision micrometer, 0.01mm increment	○	○
	Spanner for objective center adjustment	●	●
	Internal hexagonal Spanner M3	●	●

BS-5064RF, BS-5064TRF

Item	Specification	BS-5064RF	BS-5064TRF	
Optical System	Infinite Color Corrected Optical System	●	●	
Viewing Head	30° inclined gemel binocular head, 360° rotatable, interpupillary distance 54-75mm, visual adjustment: ±5 diopter	○	○	
	30° inclined gemel trinocular head, 360° rotatable, interpupillary distance 54-75mm, visual adjustment: ±5 diopter, splitting ratio binocular: trinocular=100:0 or 50:50	●	●	
	30°-60° tilting binocular head	○	○	
Eyepiece	High eye point wide field plan eyepiece PL10X/22mm	●	●	
	High eye point wide field plan eyepiece PL10X/22mm, with micrometer	●	●	
	High eye point wide field plan eyepiece PL10X/22mm, with reticle	○	○	
	High eye point wide field plan eyepiece PL10X/22mm, with gird board	○	○	
	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 PL15X/16mm	○	○	
Objective	Long Working Distance Plan Destressing Objectives	5X/NA=0.15, WD=10.8mm	●	●
		10X/NA=0.3, WD=12.2mm	●	●
		20X/NA=0.45, WD=4.0mm	●	●
		50X/NA=0.55, WD=7.9mm	●	●
	Plan Destressing Objectives	4X/NA=0.1, WD=15.0mm, CG=0.17mm	○	○
		10X/NA=0.25, WD=10.8mm, CG=0.17mm	○	○
		20X/NA=0.4, WD=1.5mm, CG=0.17mm	○	○
		40X/NA=0.65, WD=0.8mm, CG=0.17mm	○	○
		60X/NA=0.85, WD=0.3mm, CG=0.17mm	○	○
Nosepiece	Center adjustable quadruple nosepiece	●	●	
	Center adjustable quintuple nosepiece	○	○	
Intermediate Device	Intermediate device with removable internal Bertrand lens, analyzer and compensators. Built in Brewster lens, turntable switching mechanism (center and focal length adjustable).	●	●	
	Gyps 1λ (Φ18mm, optical path difference 551nm)	●	●	
	Mical 1/4λ (Φ18mm, optical path difference 147.3nm)	●	●	
	Quartz Wedge (I -IV)	●	●	
Microscope Body	Transmitted & Reflected frame with low position coaxial focusing mechanism, coarse range: 30mm, fine precision 0.002mm, with upper limited and tension adjustment.		●	
	Reflected frame with low position coaxial focusing mechanism, coarse range: 30mm, fine precision 0.002mm, with upper limited and tension adjustment.	●		
Illumination	Wide-range voltage 100V-240V, 12V/50W halogen lamp house for reflected, center presetting,	●	●	
	Wide-range voltage 100V-240V, 12V/50W halogen lamp house for transmitted, center presetting,		●	

	Reflected illuminator with LBD filter, field diaphragm and aperture diaphragm adjustable	●	●
	Halogen light, 12V/50W	●	●
Stage	Circular metal stage, graphite coating, anti-corrosive and anti-friction, diameter 160mm, 360° rotatable, 1° increment, precision 6', with locking device	●	●
	2 clips	●	●
	Mechanical stage, moving range: 30mmX40mm	○	○
Condenser	Swing-out achromatic condenser (N.A 0.9)		●
Polarizer & Analyzer	Polarizer and analyzer for transmitted and reflected. Pluggable analyzer, 360° rotatable, grid value: 2°, accuracy 6', with locking device. Polarizer, 360° rotatable, with four scales of 0, 90, 180 and 270.		●
	Polarizer and analyzer for reflected. Pluggable analyzer, 360° rotatable, grid value: 2°, accuracy 6', with locking device. Polarizer plate.	●	
Filters	Yellow color filter (Φ45)	○	○
	IF55 filter (Φ45)	○	○
	LBD filter (Φ45), only for halogen lamps	○	●
	neutral filter (Φ45)	○	○
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	Electronic eyepiece connector	●	●
	High precision micrometer, 0.01mm increment	●	●
	Spanner for objective center adjustment	●	●
	Internal hexagonal Spanner M3	●	●

Note: ● Standard Outfit, ○ Optional

Accessories

1. Long working distance plan destressing objectives

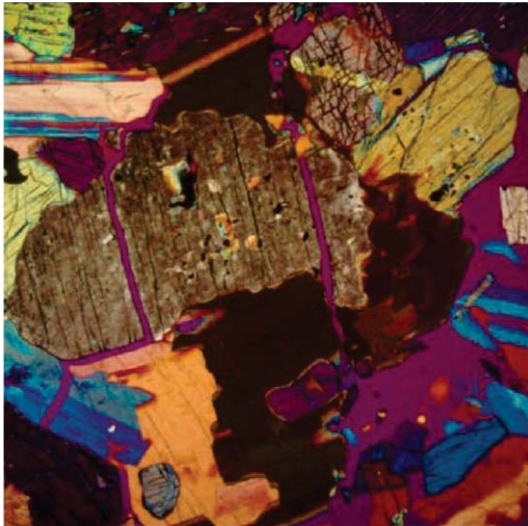
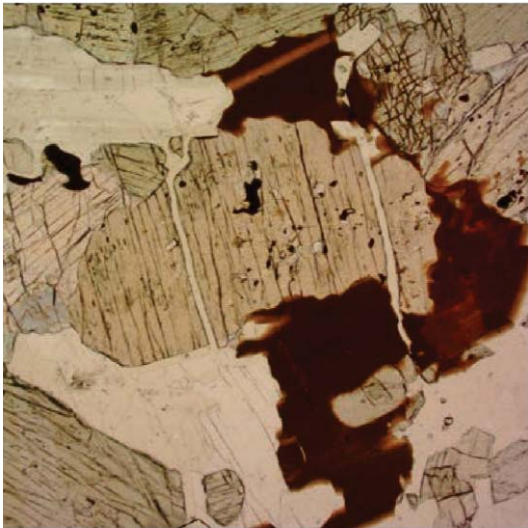
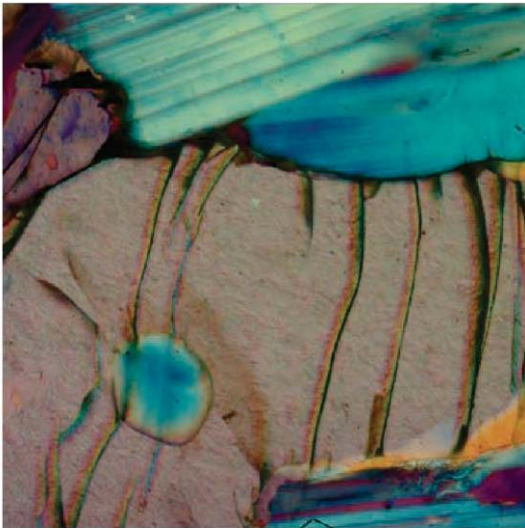


New producing and assembling technology of the objectives effectively eliminate the stress effects in heat treatment, gluing, assembly and calibration process. The background of field of view is almost black in orthogonal state, and the entire set of objectives has basically completely eliminated stress. It is especially well done for reflected observation.

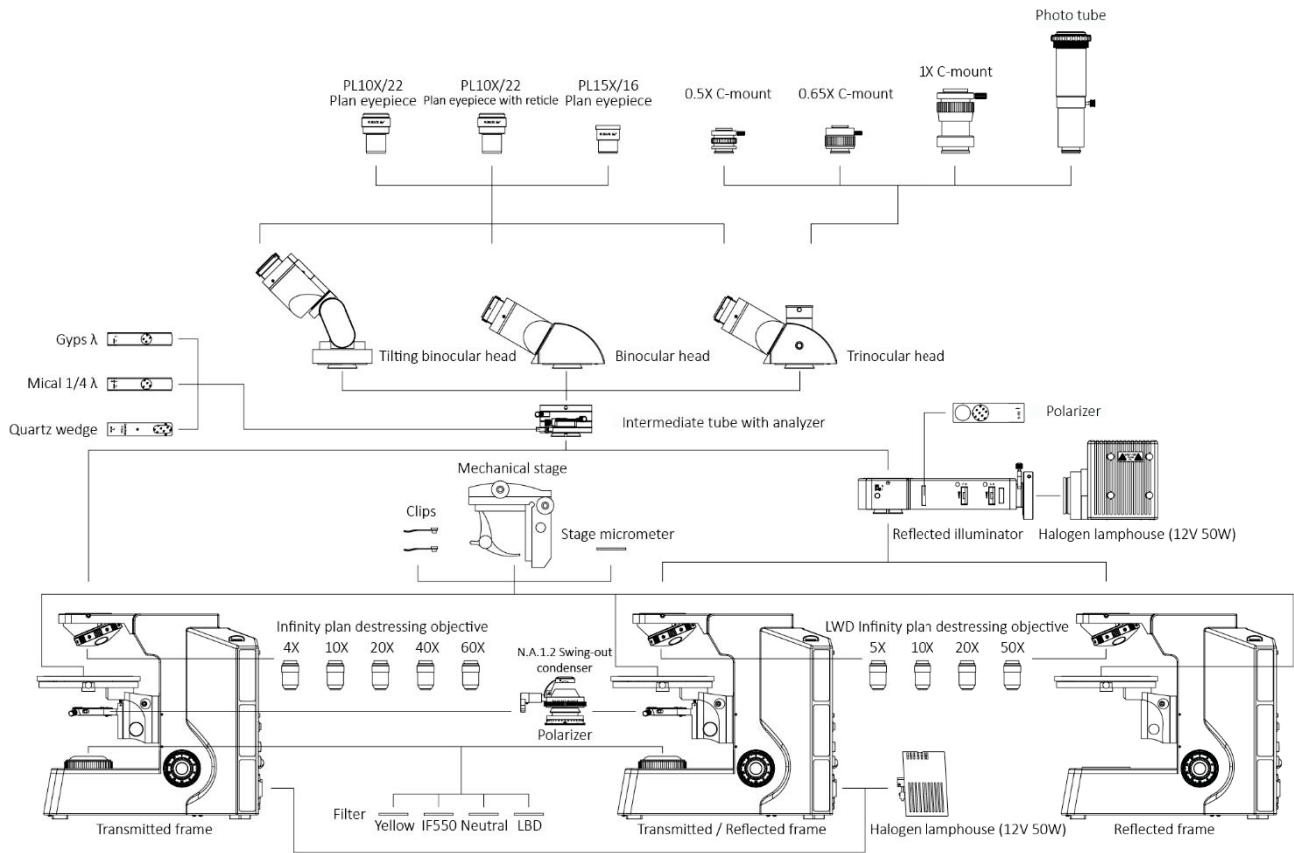
2. Professional measuring stage



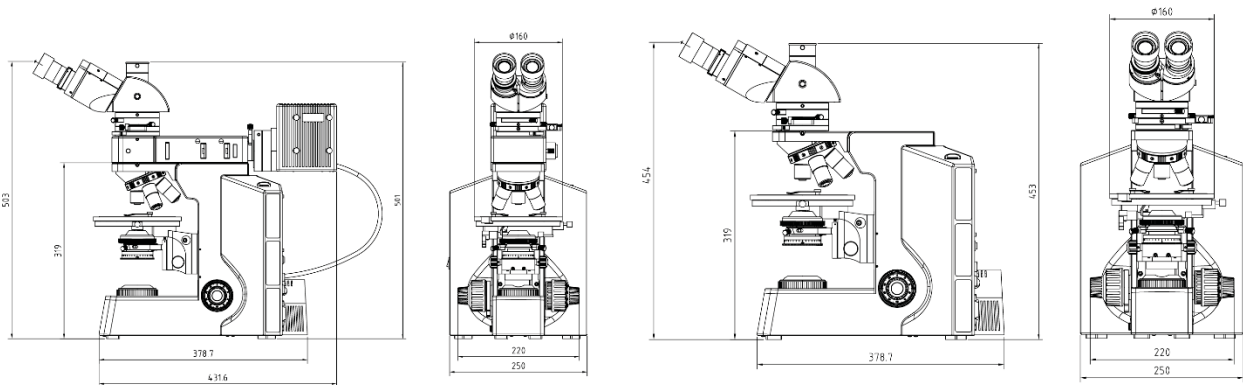
Sample Image



System Diagram



Dimension



Unit:mm

4. BS-5092 Polarizing Microscope



BS-5092

Introduction

BS-5092 polarizing microscope is specifically designed for university colleges, geology, mining, metallurgy, pharmacy and other institutions for teaching, research and production. It can be used to analyze and identify various minerals and specimens, it can also be used to inspect chemical fiber, semiconductor products and medicines. Users can do single-polarized observation, orthogonal polarization observation, conoscopic observation and photography with the microscope. This microscope is a set of powerful and good quality polarizing microscope.

Feature

1. Supply high quality and contrast image with special strain free objectives.
2. Can be used for single polarization, othogonal polarization and conoscopic observation.
3. Transmitted illumination, 24V/100W long life halogen lamp.
4. Stage with 45° located, attachable mechanical stage with large moving range, no interference when change objectives.
5. Gypsum λ plate, mica $\lambda/4$ plate, quartz wedge plate are equipped.

Application

BS-5092 polarizing microscope can be used for geology, petroleum, chemicals, mining, metallurgy, pharmacy, polymer, LED and other field. It can be used in university colleges, industrial laboratories and other institutions for teaching, research and production.

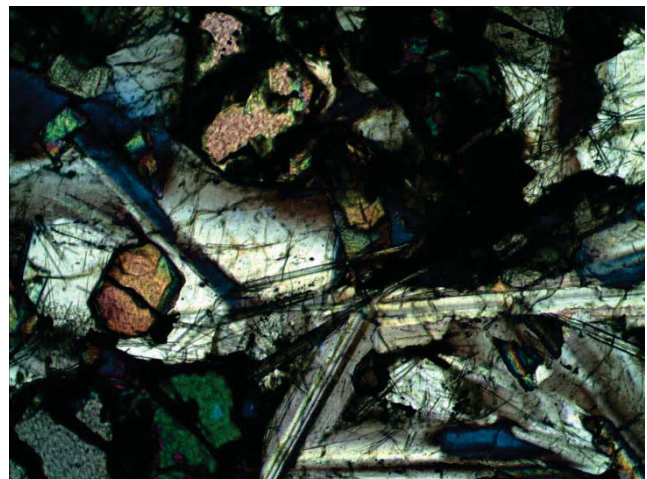
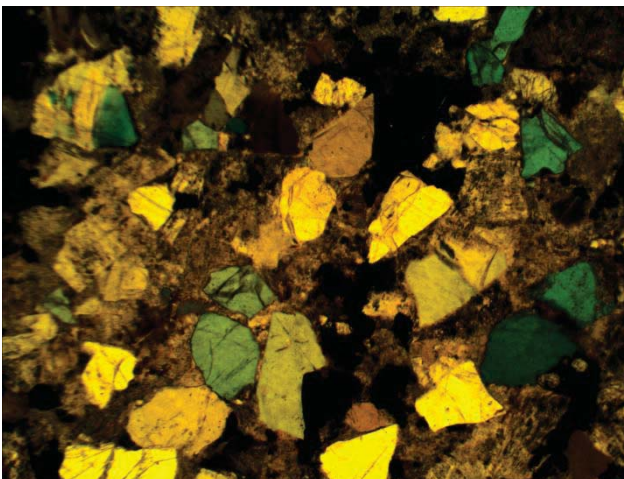
Specification

Item	Specification	BS-5092
Optical System	Infinite Optical System	•
Viewing Head	Seidentopf trinocular head, Inclined at 30°, Interpupillary 48-75mm	•
Eyepiece	Plan eyepiece EW10×/22mm	•

	Plan eyepiece with scale of crosshair, crosshair, gridding	●
Strain-Free Plan Achromatic Objective	4x/0.10/∞/-, WD 17.3mm	●
	10x/0.25/∞/0.17, WD 10.0mm	●
	20x/0.40/∞/0.17, WD 5.10mm	○
	40x/0.65/∞/0.17, WD 0.54mm	●
	100x/1.25/∞/0.17, WD 0.13mm	●
Nosepiece	Backward quintuple nosepiece, Center adjustable	●
Analyzer	0°-360° rotatable analyzer with gradation, minimum gradation: 0.1° (Vernier scale)	●
Conoscopic Observation	Switch between orthoscopic and conoscopic observation, Bertrand lens position adjustable	●
Optical Compensator	λ plate (first class red), 1/ 4λ plate, quartz wedge plate	●
Polarizing Rotatable Stage	Diameter Φ170mm, center adjustable, 360° scale, minimum division 1°, minimum reading vernier scale 6', 45° click stop knob	●
Attachable Stage	Moving range 30mm×40mm	○
Condenser	Strain free swing out condenser NA0.9/0.25	●
Focusing	Coaxial coarse & fine adjustment, range 32mm, fine division 0.001mm, coarse stroke 37.7mm per rotation, Fine stroke 0.1mm per rotation	●
Polarizer	360° Rotatable, 0° position adjustable	●
Illumination	Transmitted light: 24V/100W Halogen lamp, brightness adjustable	●
Filter	Blue filter Φ45mm	●
	ND6 Neutral density filter Φ45mm	○
	ND25 Neutral density filter Φ45mm	○
Attachment	Video attachment	○
	0.01mm micrometer	○

Note : ● Standard Outfit, ○ Optional

Sample Image



5. BS-5092RF/TRF Polarizing Microscope



BS-5092TRF

Introduction

BS-5092 series transmitted and (or) reflected polarizing microscopes are specifically designed for university colleges, geology, mining, metallurgy, pharmacy and other institutions for teaching, research and production. They can be used to analyze and identify various minerals and specimens, they can also be used to inspect chemical fiber, semiconductor products and medicines. Users can do single-polarized observation, orthogonal polarization observation, conoscope observation and photography with the microscope. Gypsum λ plate, mica $\lambda/4$ plate, quartz wedge plate and moving stage, wrenches come with the microscope. This microscope is a set of powerful and good quality polarizing microscope.

Feature

1. Trinocular head, digital cameras can be easily used on this microscope for image and video taking.
2. Supply high quality and contrast image with special strain free objectives.
3. Can be used for single polarization, orthogonal polarization and conoscopic observation.
4. Transmitted and (or) reflected illumination, 24V/100W long life halogen lamp.
5. Stage with 45° located, attachable mechanical stage with large moving range, no interference when change objectives.
6. Gypsum λ plate, mica $\lambda/4$ plate, quartz wedge plate are equipped.
7. High quality professional polarizing microscope for geology, petroleum, chemicals, mining, metallurgy, pharmacy, polymer, LED and other field.

Application

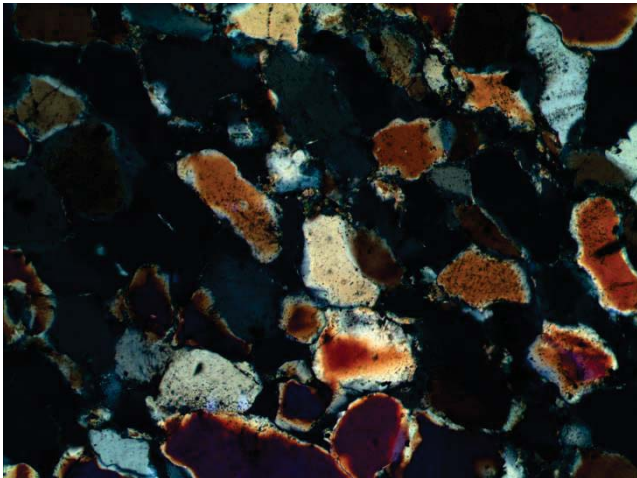
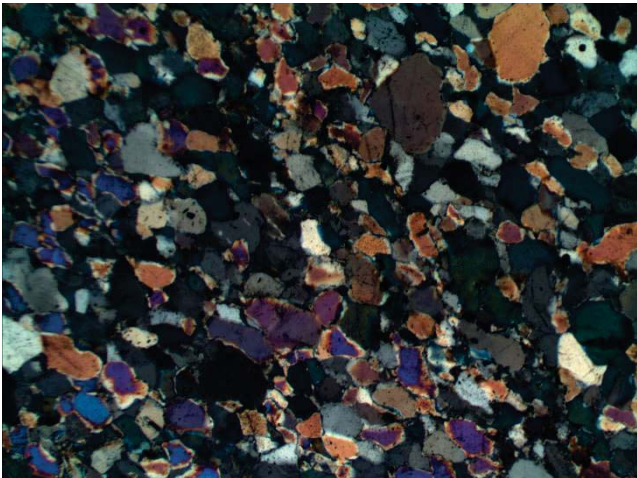
BS-5092 series transmitted and (or) reflected polarizing microscopes can be used for university colleges, geology, mining, metallurgy, pharmacy and other institutions for teaching, research and production.

Specification

Item	Specification	BS-5092RF	BS-5092TRF
Optical System	Infinite Optical System	●	●
Viewing Head	Seidentopf trinocular head, Inclined at 30°, Interpuillary 48-75mm	●	●
Eyepiece	Plan eyepiece EW10×/22mm	●	●
	Plan eyepiece with scale of crosshair, Plan eyepiece with crosshair, Plan eyepiece with gridding	●	●
Strain-Free Plan Achromatic Objective	5×/0.12/∞/-, WD 15.5mm	●	●
	10×/0.25/∞/-, WD 10.0mm	●	●
	20×/0.4/∞/0, WD 5.8mm	●	●
	50×/0.75/∞/0, WD 0.32mm	●	●
	100×/0.8/∞/0, WD 2mm	●	●
	40×/0.65/∞/0.17, WD 0.54mm		●
	100×/1.25/∞/0.17, WD 0.13mm		●
Nosepiece	Backward quintuple nosepiece, Center adjustable	●	●
Analyzer	0°-360° rotatable analyzer with gradation, minimum gradation: 0.1°	●	●
Conoscopic Observation	Switch between orthoscopic and conoscopic observation, Bertrand lens position adjustable	●	●
Optical Compensator	λ plate (first class red), 1/ 4λ plate, quartz wedge plate	●	●
Polarizing Rotatable Stage	Diameter Φ170mm, center adjustable, 360° scale, minimum division 1°, minimum reading vernier scale 6', 45° click stop knob	●	●
Attachable Stage	Moving range 30mm×40mm	○	○
Condenser	Strain free swing out condenser NA0.9/0.25		●
Focusing	Coaxial coarse & fine adjustment, range 32mm, fine division 0.001mm, coarse stroke 37.7mm per rotation, fine stroke 0.1mm per rotation	●	●
Polarizer	Transmitted: 360° Rotatable, 0° position adjustable		●
	Reflected: Fixed	●	●
Illumination	Reflected light: 24V/100W Halogen lamp, brightness adjustable	●	●
	Transmitted light: 24V/100W Halogen lamp, brightness adjustable		●
Filter	Blue filter Φ45mm		●
	ND6 Neutral density filter Φ45mm		○
	ND25 Neutral density filter Φ45mm		○
	Blue filter Φ25mm	○	○
	ND6 Neutral density filter Φ25mm	○	○
	ND25 Neutral density filter Φ25mm	○	○
Attachment	Video attachment	○	○
	0.01mm micrometer	○	○

Note: ●Standard parts ○Optional parts

Sample Image



6. BS-5095 Research Polarizing Microscope



BS-5095



BS-5095RF



BS-5095TRF

Introduction

BS-5095 series scientific research polarizing microscopes have been specially designed for laboratory and scientific research work and university education, the microscopes combine with the practical, easy operation and superior optical system, can be used for single polarization, orthogonal polarization, conoscopic light observation. They can provide you reliable, high resolution and high contrast image. The microscopes can be used for multipurpose polarized light observation in fields such as geology, mineralogy and fossil fuel resource exploration.

Feature

1. Research-grade Polarizing Microscope with Wide Application Range and High Reliability



Transmission observation: Bright Field, Dark Field, Phase Contrast.

Reflection observation: Bright Field, Dark Field, Polarizing, Fluorescent, Phase Contrast (DIC).

Multiple Types of Compensators are available.

2. Excellent Optical Quality and Strong Stability

(1) Infinite optical system and 10X/25mm eyepiece provide a high definition and wide view field.

(2) Kohler Illumination System with Uniform Illumination makes the microscopic imaging more realistic and the results are highly repeatable.

(3) Strain-free Plan objectives Make Imaging More Accurate.

(4) Center Adjustable Sextuple Nosepiece allow more objectives.



(5) High-precision Revolving Round Stage, diameter 190mm, pre-centered, attachable X-Y stage is optional.



(6) The polarizing set includes 0-360° rotatable analyzer, Bertrand lens can switch very quickly from conoscopic and orthoscopic images.



(6) Compensator Slot on nosepiece. Various compensators can be used to enhance the advanced quantitative measurement of the signal of the weak birefringent material.



Reflected illuminator with polarizer and beam splitter, field and aperture diaphragms adjustable. Pluggable polarizer is removable for natural light observation and easy to be replaced. Removable beam splitter is designed for ensuring that all imaging light can enter the observation tube during transmission observation, improving the image quality under interference and orthogonal polarization.

3. Viewing head



Tilting Seidentopf Trinocular Viewing Head(optional) can be operated in a more comfortable position.

4. Rotary observation module



Up to 6 observation modules can be placed in the rotating disc structure, different observation method can be quickly switched.

5. ECO function



The transmitted light would be off automatically after 30 minutes from operators leave. It can save energy and extend the lamp life.

Application

BS-5095 series polarizing microscopes are ideal instrument in geology, petroleum, coal, mineral, chemicals, semiconductor and pharmaceutical inspection fields. They are widely used in academic demonstration and scientific research areas.

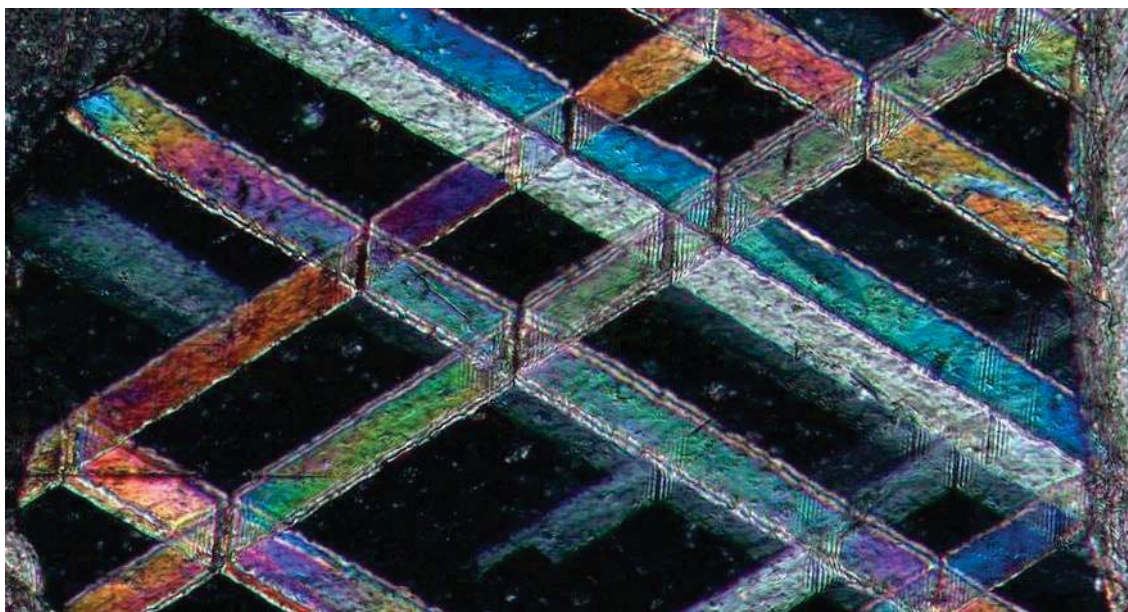
Specification

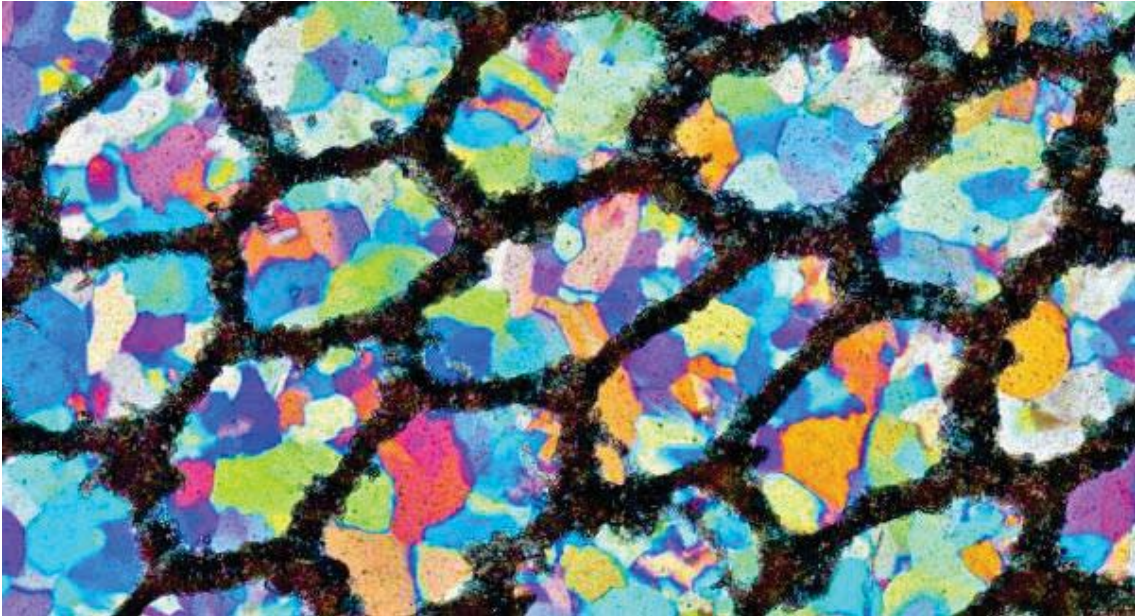
Item	Specification	BS-5095	BS-5095RF	BS-5095TRF	
Optical System	Infinite Color Corrected Optical System	●	●	●	
Viewing Head	30° inclined trinocular head, 360° rotatable, interpupillary distance: 47-78mm	●	○	○	
	0-35° inclined trinocular head, 360° rotatable, interpupillary distance: 47-78mm	○	●	●	
Eyepiece	Wide field eyepiece WF10X/22mm	●	●	●	
	Wide field eyepiece WF10X/22mm, with reticle	●	●	●	
	SW10×/25mm	○			
	SWF10×/25 with cross line reticle, with fixing pin	○			
	SWF10×/25 with cross line, with fixing pin	○			
	SWF10×/25 with grid reticle, with fixing pin	○			
Objective	Infinite Strain Free Plan Achromatic Objective (Transmitted)	4X/NA=0.10, WD=30.0mm	●	○	
		10X/NA=0.25, WD=10.2mm	●	○	
		20X/NA=0.40, WD=12.0mm	●	○	
		40X (S)/NA=0.65, WD=0.7mm	●	●	
		60X (S)/NA=0.80, WD=0.85mm	○	○	
		100X (S, Oil)/NA=1.25, WD=0.2mm	●	●	
	LWD Infinite Strain Free Semi-APO Plan Objective (Reflected)	5X/NA=0.15, WD=20.0mm		●	●
		10X/NA=0.30, WD=11.0mm		●	●
		20X/NA=0.45, WD=3.0mm		●	●
	LWD Infinite Strain Free APO Plan Objective (Reflected)	50X (S)/NA=0.80, WD=1.0mm		●	●
100X (S)/NA=0.90, WD=1.0mm			●	●	
Nosepiece	Backward quintuple nosepiece, center adjustable	●	●	●	
Intermediate Device	Intermediate device with removable internal Bertrand lens, analyzer and compensators. Built in Brewster lens, turntable switching mechanism (center and focal length adjustable).	●	●	●	
	Gyps 1λ	●	●	●	
	Mical 1/4λ	●	●	●	
	Quartz Wedge	●	●	●	
Stage	High-precision revolving round stage, diameter 190mm, center adjustable, 360° rotatable, minimum division 1°, Vernier division 6', 45° click stop knob	●	●	●	
	Attached mechanical stage with X-Y movement, moving range	●	●	●	

	30mm*30mm			
Illumination	Reflected illumination, 12V 100W halogen lamp, input voltage: 100V-240V		○	○
	Reflected illumination, 5W LED lamp, input voltage: 100V-240V		●	●
	Transmitted illumination, 12V 100W halogen lamp, input voltage: 100V-240V	●		○
	Transmitted illumination, 3W LED lamp, input voltage: 100V-240V	○		●
Condenser	Strain-free swing out condenser N.A.0.9/0.25	●	●	●
Polarizing Attachment	Analyzer, 360° rotatable, minimum scale 0.1°	●	●	●
	Polarizer, fixed		●	
	Polarizer, 360° rotatable, 0° position adjustable, under condenser	●		●
Filters	Blue filter, for reflected	○	○	○
	Green filter, for reflected	○	○	○
	Amber filter, for reflected	○	○	○
	Neutral filter, for reflected	○	○	○
	ND6, for reflected	○	○	○
	ND25, for reflected	○	○	○
	Blue filter, for transmitted	○	○	○
	Green filter, for transmitted	○	○	○
	Amber filter, for transmitted	○	○	○
	ND6, for transmitted	○	○	○
	ND25, for transmitted	○	○	○
C-mount Adapter	0.5X C-mount adapter	○	○	○
	0.7X C-mount adapter	○	○	○
	1X C-mount adapter	●	●	●

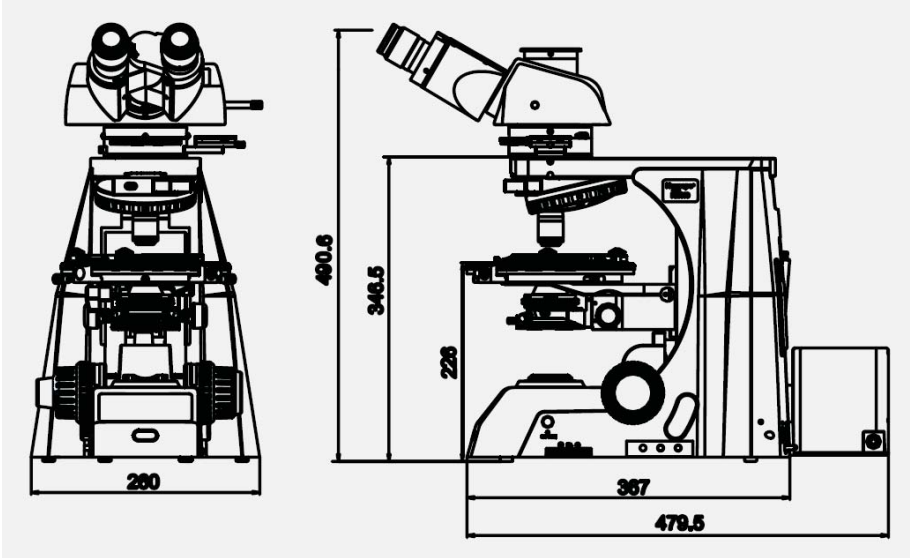
Note: ● Standard Outfit, ○ Optional

Sample Image

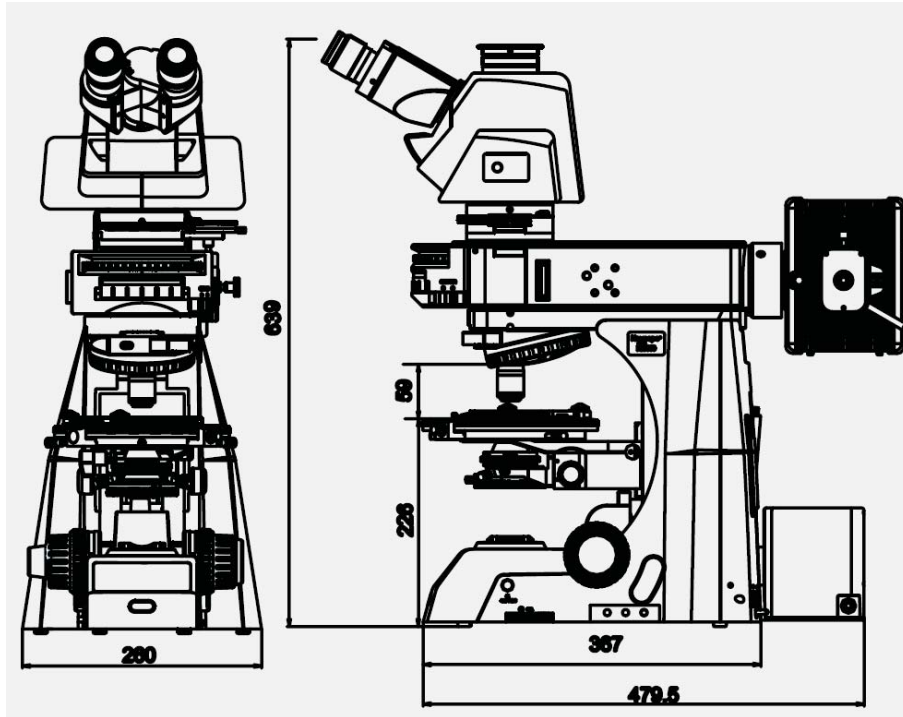




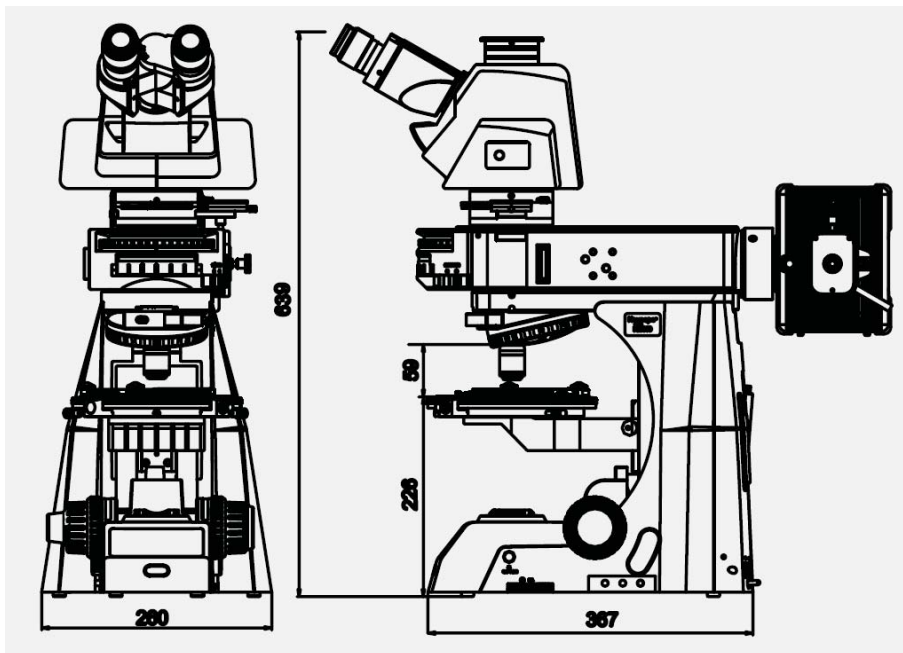
Dimension



BS-5095



BS-5095RF



BS-5095TRF

Unit: mm