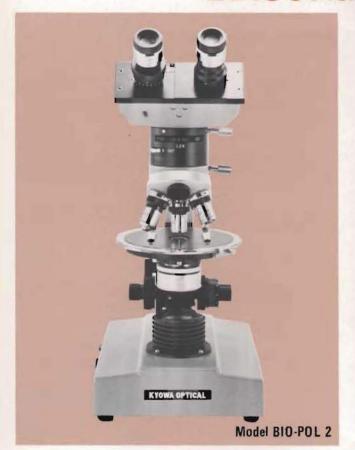
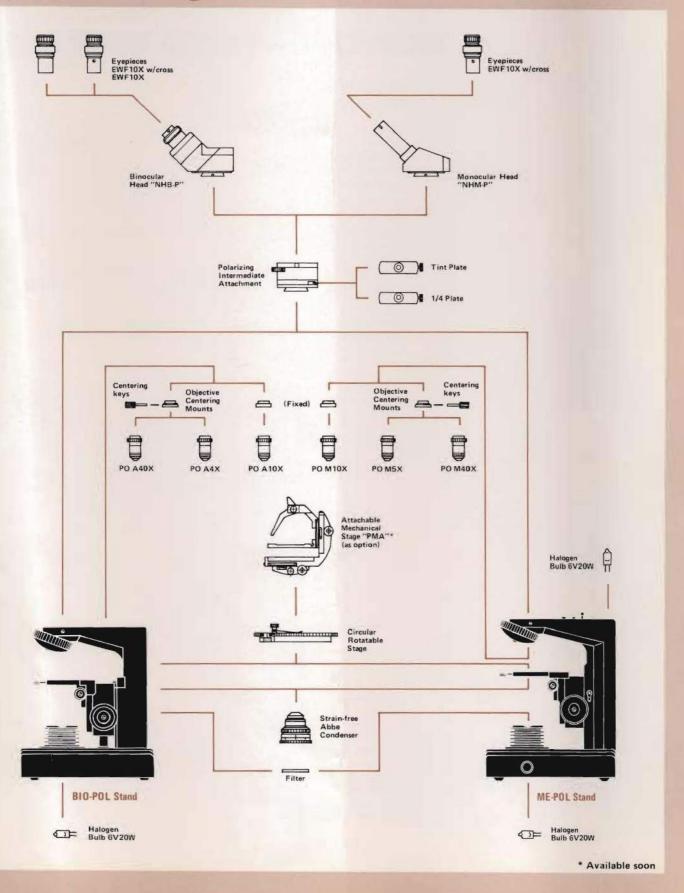
# **Binocular Models**







## System Diagram



## **BIO-POL**

Handy polarizing microscope for orthoscopic and conoscopic investigations in transmitted light.

Particularly well suited as a teaching, student, and simple laboratory microscope.



Eyepiece and tube

Focusing wide field 10X eyepiece with cross-hair and 90° slot location.

Polarizing intermediate attachment

Accepts DIN standard compensators (20 x 6mm). Swing-in/Swing-out analyzer. Built-in Bertrand lens unit on rotating turret.



Tint plate and 1/4 wavelength retardation plate

## Revolving nosepiece

Quadruple, ball bearing, 10X objective mount fixed and all other objective mounts centerable.

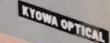
### Strain-free achromatic objectives-

The standard BIO-POL system incorporates the conventional PO A4X, A10X and A40X strain-free semi-plan achromatic objectives for transmitted light but it can be also accommodate PO A20X and A100X (oil) objectives.

Circular rotating stage
The ball bearing stage is rotatable through 360° with vernier reading to 6' and is precentered at the factory. Three centering screws are provided for future centering. Outside diameter is 150mm. Locking clamp for stage rotation. An attachable mechanical stage is optionally available.

Polarizing condenser

Strain-free Abbe condenser N.A,1.25 with fitted rotating polarizer and iris diaphragm. Polarizer graduated every 45' marked 0, 90, 180 and 270.



Built-in 6V 20W Halogen illuminator and transformer with variable intensity control. Simple bulb changeover and alignment.

Model BIO-POL 1



Polarizing microscope for orthoscopic and conoscopic investigations in a dual-purpose transmitted and incident light.

The ideal microscope for examining either slide prepared or polished geological specimens.

The ME-POL comes equipped with PO M5X, M10X and M40X strain-free semi-plan achromatic objectives for incident light. An optional PO M20X objective is available.

Built-in dual halogen illumination system with a simple switch-over from transmitted to incident light, Field and aperture diaphragms for Koehler type illumination with polarizer rotatable through 90°



# Standard Specification

Models	Transmitted models		Transmitted and incident models	
Components	BIO-POL 1	BIO-POL 2	ME-POL 1	ME-POL 2
Magnification	40X - 400X for observation		50X - 400X for observation	
Mechanical tube length	160mm			
Heads	Monocular, 45° inclined	Binocular, 45° inclined Interpupillary range 54mm-74mm	Monocular, 45° inclined	Binocular, 45° inclined Interpupillary range 54mm—74mm
Polarizing intermediate attachment	Magnification 1,2X, Swing-in/Swing-out analyzer. Built-in Bertrand lens unit on rotating turret for conoscopy, DIN standard compensator slot, 20 x 6mm.			
Nosepiece	Quadruple revolving nosepiece, ball bearings, with individual centering mounts for 4X and 40X objectives.			
Coaxial focus- ing knob	Range of coarse and fine adjustment: 17mm coarse and 1.4mm for fine adjustment travel.		Range of coarse and fine adjustment moving on ball-bearing: 35mm coarse and 1,4mm for fine adjustment travel.	
Stage	150mm¢ circular graduated stage with 1° increments and vernier reading to 6'. Locking clamp for stage rotation. Two stage clips. Attachable mechanical stage is available as option.			
Substage	Rack and pinion movement with 10.5mm range			
Polarizing condenser	Fully rotatable polarizer on strain-free Abbe condenser N.A. 1.25, Polarizer graduated every 45° and marked 0, 90, 180 and 270. Click stop at position "0", can be fine adjusted.			
Illumination system	Transmitted illumination, 6V 20W quartz halogen lamp with transformer and variable intensity control built-in base.		Transmitted and incident illumination, 6V 20W quartz halogen lamp with transformer and variable intensity control built-in base. Simple switch-over from transmitted to incident light. Field and aperture diapharagms for Koehler type illumination with polarizer rotatable 90°	
Strain-free objectives	PO Achromat A4X/0.10 A10X/0.25 A40X/0.65 (spring)		PO Achromat (Brightfield) M5X/0.10 M10X/0.28 M40X/0.65 (spring)	
Focusing eyepieces	EWF10X with cross	EWF10X with cross EWF10X	EWF10X with cross	EWF10X with corss EWF10X
Compensator plates	1st order red sensitive tint plate 1/4 wavelength retardation plate			
Filter	Accept 45mm filter			

#### **OPTIONAL ACCESSORIES**

- Strain-free semi-plan objectives For transmitted light microscopy PO A20X (N.A.O.40), spring PO A100X (N.A.1.25), spring For transmitted and incident light microscopy PO M20X (N.A.O.40), spring
- Required centering mount for above Focusing eyepiece EWF10X with micro
- Attachable mechanical stage PMA For the rotating stage, working range: 25mm x 25mm

















