

DESCRIPTION

ACUCAL Polarising Microscope is a type of microscope that uses polarized light to study the optical properties of materials. It is widely used in geology and mining and is therefore often referred as Polarised Metallographic Microscope or geology microscope or Petrographic Microscope.



Key Features:

- *Strain Free Objectives & Optical System*
- *Wide Field Eyepieces.*
- *High Precision Rotatable Polarizing Stage with Attachable mechanical stage.*
- *Single Polarization, Orthogonal Polarization or Conoscopic Observation*
- *Durable and ergonomic microscope body, Strong Stability*

The characteristic of polarizing microscope is to change ordinary light into polarized light for microscopic examination to identify whether a material is monorefringent or birefringent. Birefringence is an essential characteristic of crystals. Used for researching double refraction sample. ACUCAL ACUPOL series microscopes are reliable partner in scientific research and industrial inspection. It can realize many kinds of observation and provide excellent optical imaging quality.

Applications

- *Polarizing Microscope for Inspection & Education.*
- *Excellent Optical Quality and.*
- *Powerful and Applicable to the Variety of Research*
- *Widely used in geological studies, mineral identification, and material analysis. Its advanced optical system ensures detailed birefringent material examination for research and industry. Crystallography, Geology, Analytical Chemistry, Medicine, Biology, Environmentalology, Pharmacy, Toxicology, Asbestos analysis and so on.*



TECHNICAL SPECIFICATION

Main Body

- Upright main frame Research polarizing microscope for Transmitted observation. Compact, stable and suitable for clean bench. sturdy Ergonomic Design, Highly rigid, Non Hinged type, vibration free Aluminium alloy casting, Robust mechanics combined with improved optical performance.
- The volume and weight of the body is reduced as much as possible in principle of stability.

Optical System

- Plan Infinity corrected Optical System having Anti Fungus coated optics.
- Strain-free optical component, which ensures that the observed birefringence is from the sample and not from the optical element.

Observation Head: Trinocular

- Sidentopf Butterfly design Trinocular Head Inclined at 30°, 360° rotatable.
- Inter-pupillary distance from 48mm to 76mm.
- Light distribution (both) 100: 0 (100% for eyepiece), 80:20(80% for trinocular head and 20% for eyepiece)

Eyepiece

- Compensating Wide field 10X (paired) F.O.V. 22mm. Bright Field Br, Focusable Foc., Field of view number F.N. 22mm, with Cross Hair reticule 0.1 mm.
- Anti-fungal & Anti-reflection hard coated conforming to IS: 8275/1976 (latest)
- Diopter adjustment facility (+5) on both eyepiece with fixing screw.
- High Quality & Anti mould eyepieces to get the Image of object well defined over the entire field with good contrast rendition and practically free from spurious color effects.

Nose Piece

- Backward Quintuple Nosepiece, Ball Bearing loaded, interchangeable, Precise, Positive click stops for centred alignment. Nosepiece provided with grip for easy rotation mounted on a precision ball bearing mechanism for smooth and accurate alignment.

Objectives: Infinite Strain Free : Infinity Plan Achromatic or Semi Apochromatic or Apochromatic Polarizing Objectives : Anti-fungus, Interchangeable & Par focal

- ∞ 4X(N.A. 0.10), WD 17.3mm (**Transmitted**)
- ∞ 10X(N.A. 0.25) , WD 10.0mm (**Transmitted**)
- ∞ 20X(N.A. 0.40) , WD 3.33mm spring (**Transmitted**)
- ∞ 40X(N.A. 0.66) , WD 0.65mm spring (**Transmitted**)
- ∞ 60X(N.A. 0.80) , WD 0.33mm spring (optional) (**Transmitted**)
- Non stress LWD Plan Objectives 50X(NA 0.75), WD=4.25mm (**Reflected**)
- Non stress LWD Plan Objectives 100X Dry(NA 0.85), WD=3.0mm (optional) (**Reflected**)

Condenser :

- Strain Free Swing out Condenser Numerical Aperture 0.9/0.13
- Swing the lens in to get excellent image when using high power objective to make observation

Revolving Round Mechanical Stage:

- Precision Revolving Round Stage, Diameter 174mm, Center Adjustable, 360° Scale and Minimum Division 1°, Minimum reading 6' by Means of Vernier Scale, 45° click stop knob.
- Attachable mechanical stage with XY movement (Optional)
- Coaxial Coarse & Fine Adjustment, Range 25mm, Fine Stroke 0.2mm, Fine Division 0.002mm

Polariser : 360° Rotatable 0° position adjustable and can be locked

Analyser : Analyzer unit : 360° rotatable analyzer with division, can be locked and moved out of the light path.

Conoscopic Observation Kits : Switch between Orthoscopic and Conoscopic Observation, Bertrand Lens (centre adjustable) position is focusable.

Optical Compensator : λ Slip (First-order red plate), $1/4 \lambda$ Slip, Quarter-wave plate, Quartz wedge (I-IV Class)

Focusing Control:

- Co axial Graduated Coarse and Fine focusing knob on gear systems for smooth operations.
- Tension Adjustable, Ergonomically designed for easy grip.
- Fine division 0.001mm, Coarse Stroke 37.7mm per rotation, Fine stroke 0.1mm per rotation

Illumination:

- Koehler Transmitted Illumination, 5W LED, Brightness Adjustable.
- Reflected light: 5W LED, Brightness adjustable
- Blue filter $\Phi 45$ mm. (Optional)
- Neutral density filter $\Phi 45$ mm (Optional)

Electronics

- Universal Input 100V-240 V AC, 50/60 Hz.

Standard Accessories

- Operating Manual, Dust Cover, Guarantee Card and Styrofoam Molded pack.

Optional Accessories

- Microscopy Camera, Software.
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CONTACT US:

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