



## **Polarizing Microscope LD-LPM-B10**

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# Polarizing Microscope LD-LPM-B10

## Overview

Polarizing Microscope LD-LPM-B10 is an upright microscope with trinocular viewing head inclined at 30°. The 5.1 MP CMOS sensor is mounted on top for capturing still images and video. It offers dual illumination system, i.e. Transmitted and reflected illumination for carrying observation. The focusing system offers, coaxial coarse fine focusing system with adjustable tension and up stop, 2 µm minimum fine focusing division. It comes with sliding in/out of optical path polarizer, located on the top of collector. The 0°-90° gradation rotatable analyzer is used to observe single polarization. High quality and contrast images are produced using this microscope.

## Features:

- Trinocular viewing head, 30° inclined
- 5.1 MP CMOS sensor to be mounted on top
- Equipped with polarizer and analyzer for polarizing effect
- Revolving round stage Diameter 150 mm, 360° graduated
- Optical compensator: 1/4 Slip (first class red), 1/4 Slip, quartz wedge
- Polarizer and Analyzer attachment with Bertrand lens
- Dual illumination system, i.e. Transmitted and Reflected

## Applications:

Polarizing Microscope used in electronics, geology, metallurgy, mining, medicine, and pharmaceutical studies to analyze depth and details of the specimen under observation.

## Specifications:

|                   |                                                                                                                                 |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Weight</b>     | 12 kg                                                                                                                           |
| <b>Exposure</b>   | 0.294 ms to 2000 ms                                                                                                             |
| <b>Eyepiece</b>   | Eyepiece WF10X/18 with Division eyepiece 10X/18 mm 0.10 mm/div                                                                  |
| <b>Focusing</b>   | Coaxial coarse/fine focus system, with tension adjustable and limit stopper, minimum division of fine focusing: 0.002 mm        |
| <b>Condenser</b>  | Abbe condenser NA 1.25 with rack and pinion adjustable mechanism                                                                |
| <b>Dimension</b>  | 400×280×530 mm                                                                                                                  |
| <b>Nosepiece</b>  | Quadruple (Frontward ball bearing inner locating)                                                                               |
| <b>Objectives</b> | Strain-free plan achromatic objective (no cover glass) PL 5X/0.12, PL L 10X/0.25, PL L40X/0.60 (spring), PL L 60X/0.75 (spring) |

|                                    |                                                                                                                                                                                                                                                                   |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Pixel Size</b>                  | 2.2 × 2.2 μm                                                                                                                                                                                                                                                      |
| <b>Sensitivity</b>                 | 0.53 V / lux-sec                                                                                                                                                                                                                                                  |
| <b>Viewing head</b>                | Trinocular viewing head, 30° inclined                                                                                                                                                                                                                             |
| <b>Camera Sensor</b>               | 1 / 2.5 inch (H×V) (5.7 mm × 4.28 mm)                                                                                                                                                                                                                             |
| <b>Dynamic Range</b>               | 66.5 dB                                                                                                                                                                                                                                                           |
| <b>Optical System</b>              | Finite optical system                                                                                                                                                                                                                                             |
| <b>Spectral Range</b>              | 380 to 650 nm (IR Fitter)                                                                                                                                                                                                                                         |
| <b>Camera Sensor Type</b>          | CMOS (Micron) APTINA MT9P001                                                                                                                                                                                                                                      |
| <b>Frame Size and Rate</b>         | 5 fps @2592×1944, 18 fps @1280×960, 60 fps @640×480                                                                                                                                                                                                               |
| <b>Polarizing Attachment</b>       | Polarizer: Sliding in/out of optical path, located on the top of collector Analyzer: Rotatable analyzer with gradation 0°-90° Bertrand lens: Bertrand lens, sliding in/out of optical path Optical Compensator: ? Slip (first class red), 1/4? Slip, Quartz wedge |
| <b>Revolving round stage</b>       | Rotatable stage, Diameter ?150 mm, 360° graduated (in 1degree increments), minimum retardation resolution 6 inch center adjustable and with tightened                                                                                                             |
| <b>Reflected Illumination</b>      | Rotatable Polarizer 6V, 20 W, halogen lamp, adjustable brightness                                                                                                                                                                                                 |
| <b>Transmitted Illumination</b>    | Polarizer 360° rotatable, have 0, 90, 180, 270 four scale, Collector for halogen lamp illumination, Illumination 6V, 20W, halogen lamp, adjustable brightness                                                                                                     |
| <b>Camera Maximum Resolution</b>   | 2592 × 1944 (5.1 MP)                                                                                                                                                                                                                                              |
| <b>Signal To Noise Ratio (SNR)</b> | 40.5 dB                                                                                                                                                                                                                                                           |