

LED Portable Polariscopes for Stress Analysis

This portable polariscopes utilizes an LED light source for stress analysis in transparent materials. It is designed for on-site inspections, quality control, and material science research, offering clear visualization of stress distribution.



Product Overview

Professional Stress Analysis Instrument

The LED Portable Polariscopes is a compact, high-precision instrument designed for the detailed analysis of transparent materials and gemstones. By utilizing two polarizing filters, it provides clear visualization of optical properties, including birefringence, strain patterns, and refractive characteristics. This versatile tool is essential for identifying materials, detecting internal strain in diamonds, and distinguishing between natural and synthetic stones in both laboratory and on-site settings.

Technical Capabilities

Core Functions

- Stress analysis in transparent materials
- Gemstone identification (cut or rough)
- Moissanite identification
- Strain detection in diamonds
- Refractive property observation (doubly vs. singularly refractive)
- Optic sign determination
- Twinning detection

Light Source

Energy-efficient LED

Key Features

Portable Design, Rotating Analyzer, Uniform Polarized Field, Compact

Usage & Applications

Ideal Applications

Gemology • Material Science • Quality Control • Education

Compatible Materials

- Gemstones
- Glass
- Plastics
- Transparent substances