# Automatic Polariscope

#### Application

This Polariscope realizes one-click automatic measurement of the optical retardation and slow axis directions inside transparent objects with stress birefringence. By inputting the optical-stress constant and optical path length of the material, specific stress value can be automatically calculated.

It is mainly used for stress-related quality control in process development and production stages.

#### Measuring method

Rotating Analyzer Method

### Measuring principle

After passing through the polarizer, linear polarizing light turns into circularly polarized light. When a stressed sample is placed, the slow axis and fast axis of birefringence produce an optical retardation, and the emitted light becomes elliptically polarized light. By rotating the analyzer, the angle at which polarized light is affected by stress is measured, thereby calculating the stress magnitude and slow axis directions of the sample.

#### Features

- 1. Quick and automatic measurement of stress birefringence( optical retardation );
- 2. A single measurement to acquire all sample data within the viewing field;
- 3. Thorough analysis functions ranging from point, line, area to 3D;
- 4. Automatically save all original measuring data in files for future tracking; 5. Freely select measuring area before sample measurement to facilitate small size samples
- 6. Margin setting to analyze effective area in samples (optional by request);
- 7. Output optical retardation (nm), slow axis angle (°), stress (Mpa), optical retardation per unit thickness
- (nm/cm)( optional by request );



# **Applied Industry**



Fused Silicon







Optics Lens

#### Crystal

# Stress Visualization | Precise Measurement **Easy Operation | Compatible With Various Materials**

# Typical application

1. Transparent glass products, such as fused quartz components, optical glass;

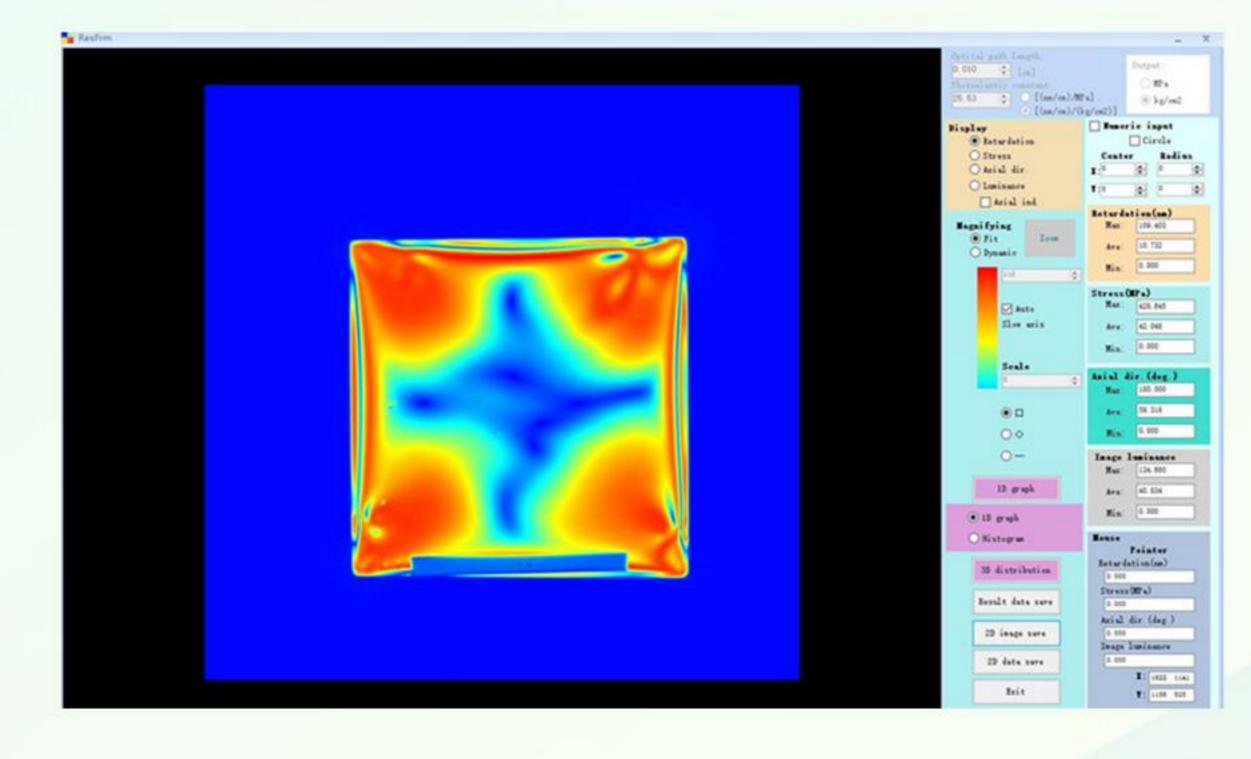
2. Transparent plastic products, such as optical resin components, lens, light guide plate

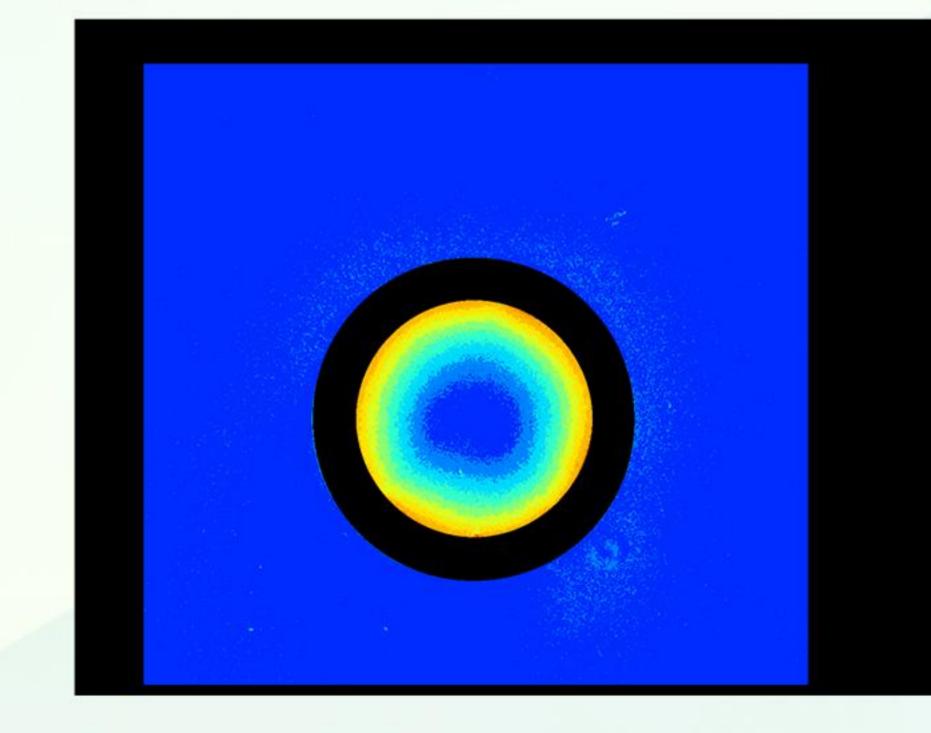
3. High transmittance crystal products, such as YAG crystal

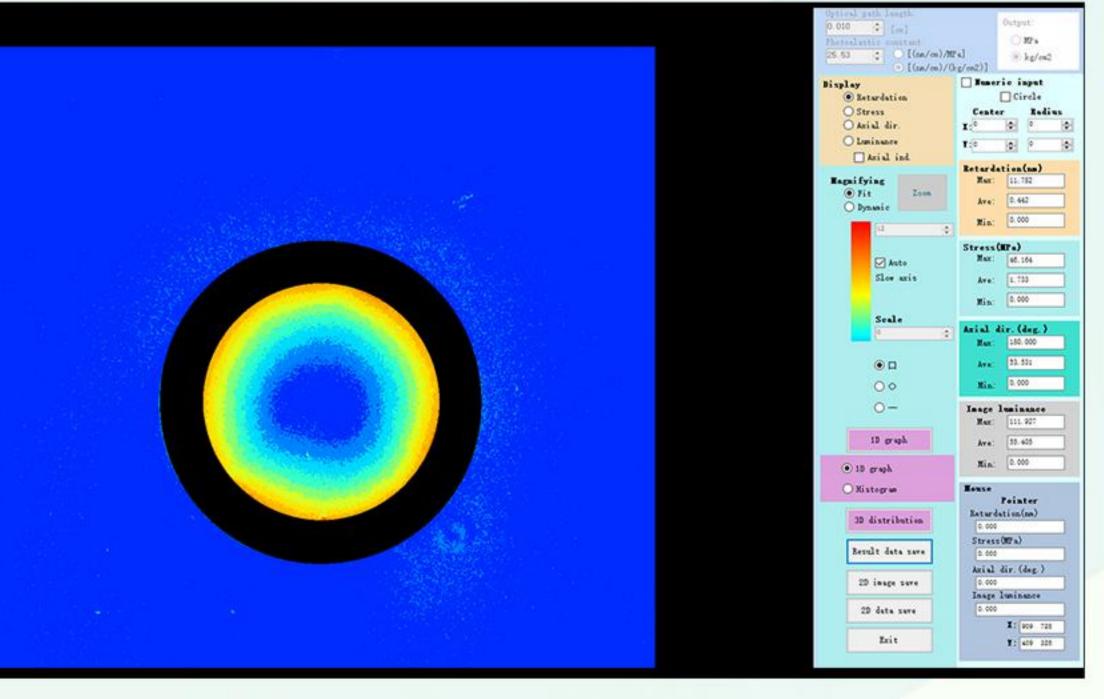
### Main Specifications

Item	NMV-145	NMV-145L
Polarizing Field	200*200mm	400*400mm
Set Wavelength	590nm	
Optical Retardation Range	0-145nm	
Repeated Accuracy	±1nm	
Effective Pixel	1100*1100	1100*1100
Measuring Geight	278mm	100-510mm (Adjustable)
Weight	About 20KG	About 30KG
Overall Size	365*285*577mm	680*540*760mm

### Result Display







Glass Lens

## Contact Us

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