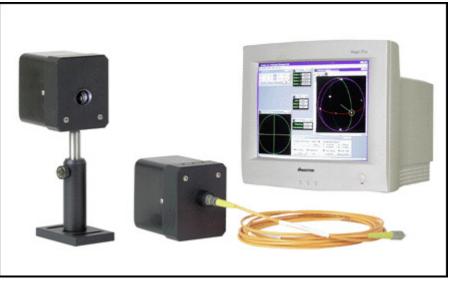# Polarimeter

Software
The Thorlabs' Polarization Analyzer Software offers the user powerful features, and is compatible with Windows 3.1 and Windows 95 (preferred).

The software offers:

- **Real-time graphical display of polarization vector, degree-of-polarization and ellipticity measurements.**
- **User-configured display options: sample rate, update rate, Stokes polarization vector tracer line with depth shading and tracer line strength.**
- **Numerical data pop-up windows showing raw voltages, normalized Stokes vectors, DOP, DOLP, DOCP, ellipticity and azimuth angle.**
- **A prescribed Calibration Algorithm, and a Manual Calibration mode in which the elements of the calibration matrix may be manually entered.**
- **Poincare sphere rotations and zoom**
- **User configured data logging mode allows "raw" detector voltages and measured polarimetric parameters to be stored in a *.prn file format. (This format is compatible with programs such as MathCad ®and Microsoft ®Excel.)**

Specifications

Wavelength Range:
450-700nm, Model# PA410
700-900nm, Model# PA450
900-1100nm, Special Order Model# PA460
1100-1600nm, Model #PA430

Power Range: 30nW-3mW

Accuracy D.O.P.:
±0.5%@Calibration Wavelength
±1.5%Over Operating Range

Measurement Rate:
25Hz with Adjustable Display Update Rate (Computer platform dependent.)

Optical Aperture:
Ø8mm, Model #PA410
Ø8mm, Model #PA450
Ø3mm, Model #PA430
FC Fiber Optic; All Models

Click on Item# to View Mechanical Drawing (PDF)

ITEM#	DESCRIPTION
PA410	Polarimeter 450-700nm, 115VAC
PA410-EC	Polarimeter 450-700nm, 230VAC
PA450	Polarimeter 700-900nm, 115VAC
PA450-EC	Polarimeter 700-900nm, 230VAC
PA460	Polarimeter 900-1100nm, 115VAC SPECIAL ORDER
PA460-EC	Polarimeter 900-1100nm, 230VAC SPECIAL ORDER
PA430	Polarimeter 1100-1600nm, 115VAC
PA430-EC	Polarimeter 1100-1600nm, 230VAC

Each Polarimeter in our PA Series is a versatile 'full polarimeter,' which utilizes the rotating quarter waveplate (QWP) technique to measure the state of polarization (SOP) and degree of polarization (DOP) of an incident beam. Both free space beams and connectorized fibers are supported. The SOP is displayed numerically as a normalized Stoked vector, and graphically as a vector on a unit Poincare sphere. The DOP measurements include the total DOP, the degree of linear polarization (DOLP) and the degree of circular polarization (DOCP).