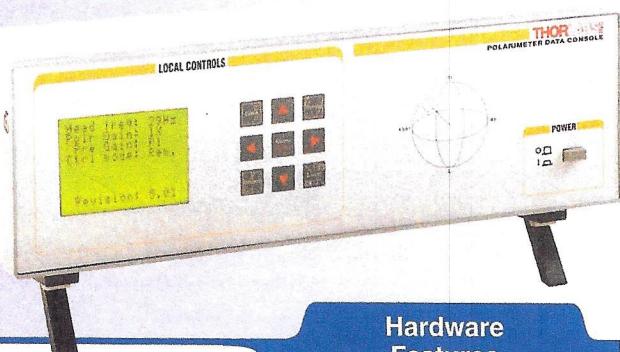


PA500 series polarimeter



Hardware Features

Polarization Analysis

- ▶ Capable of stand-alone and PC-based operation.
- ▶ Communication via standard PC RS-232 port.
- ▶ Front panel LCD display and keypad provide access to powerful console features.
- ▶ All data acquisition, signal processing, and communication electronics are included in console.

Thorlabs Inc., introduces the PA500-series of Polarization Analyzers ("polarimeters") to its existing line of opto-electronic instrumentation. With precision electronics, PC independent control module, Windows95/98/ME/NT/2000/XP compatible software, and LabVIEW™ support, the PA500-series full polarimeters are the right tools for accurately measuring both fully and partially polarized light from free-space and fiber connectorized input.

The external console contains all electronic hardware required for data acquisition, signal processing, and communications, eliminating the need to install PC-based expansion cards. Further expansion capabilities include plug-and-play communication cards that allow the system to adapt to new standards such as USB and I²C. By utilizing these high-device-count standards, one PC is capable of operating multiple polarimeters.

With a full-featured front panel keypad and backlit LCD display, the console is capable of acting as a stand-alone, real-time polarimeter. For greater flexibility and more powerful features, included PC software can acquire data directly from the console for further analysis. The easy-to-use, real-time graphical interface makes operation simple, right out of the box. Powerful graphical displays including the Poincaré Sphere, Polarization Ellipse, Voltage Oscilloscope¹, and Numerical Data windows provide all information essential to full polarimetric characterization. The fully configurable display windows allow the user to customize screens for additional flexibility. Four standard models offer complete coverage over the wavelength range of 450nm to 1600nm with an accuracy of $\pm 1.0\%$.

¹ Displays raw data voltages, auxiliary voltages, thermal signal and/or un-normalized power(S_0)

Polarimeter
PMD/PDL

Laser/TEC
Controllers

Laser
Mounts

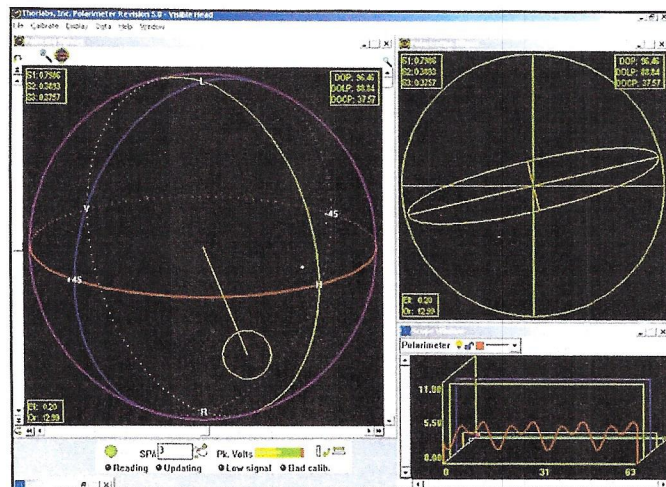
WDM
Sources &
Switches

Optical
Sources &
Switches

Detectors &
Power Meters

Laser Lab
Instruments

TXP Systems
Measurement
& Control

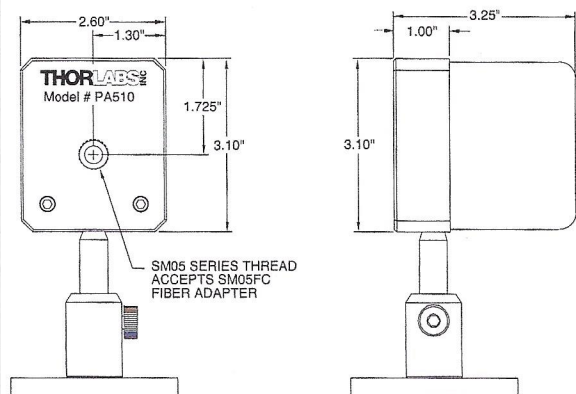


PC Software Features

- ▶ Real-time graphic displays include Poincaré Sphere, Polarization Ellipse, Oscilloscope, and Numerical Data windows.
- ▶ Numerical Data pop-up windows include raw voltages, normalized Stokes parameters, DOP DOLP, DOCP ellipticity & azimuth angle.
- ▶ Simple 3-step calibration procedure allows storage & recall of multiple calibrations for unique wavelengths and optical head characteristics.
- ▶ Storage of long-term test data is simple with Data Logging procedures.
- ▶ Poincaré Sphere rotation and zoom.
- ▶ Full LabVIEW™ & LabWindows™/CVI™ support drivers included. Compatible with Windows95®/98/ ME/NT/2000/XP.

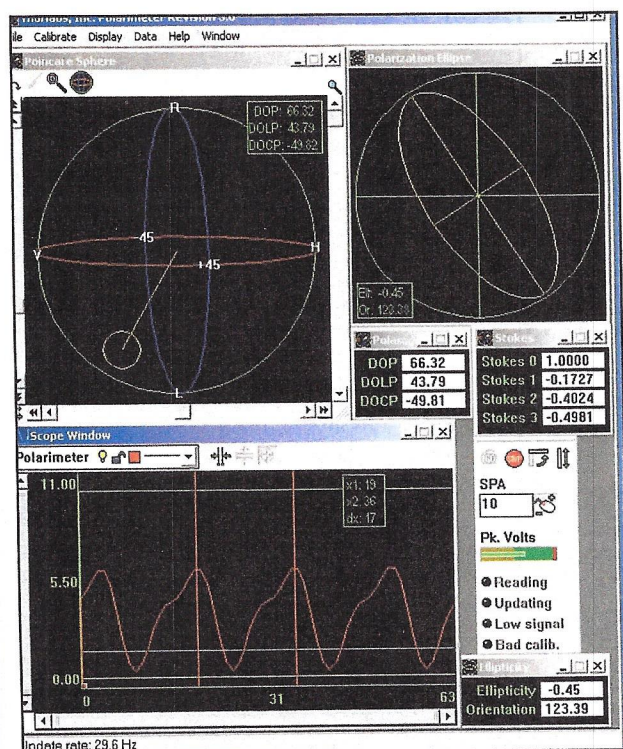
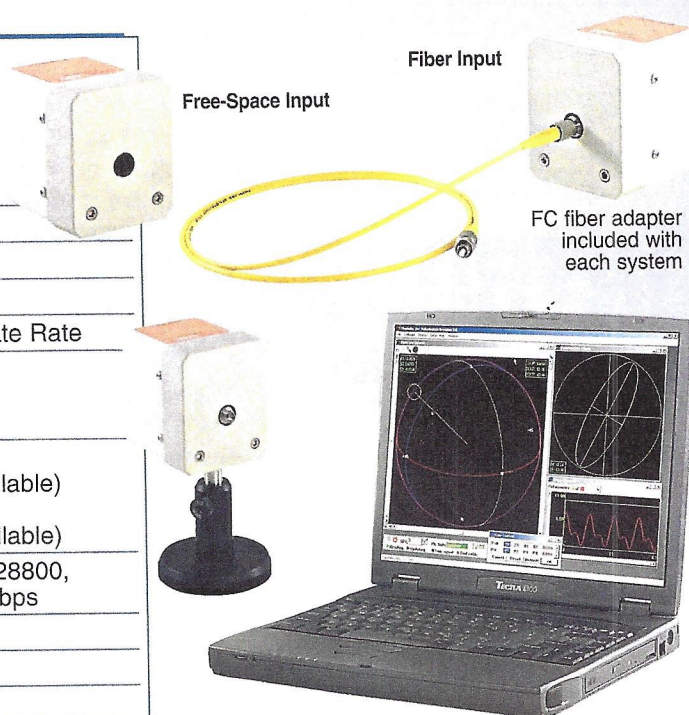
System Requirements

Windows 95/98/ME / NT/2000/XP
PC with Pentium II/AMD class processor
32MB minimum recommended RAM
6MB of free hard drive space
CD-ROM drive
COM Port (RS-232)
Mouse or compatible pointing device
800 x 600 minimum display resolution
256 color minimum

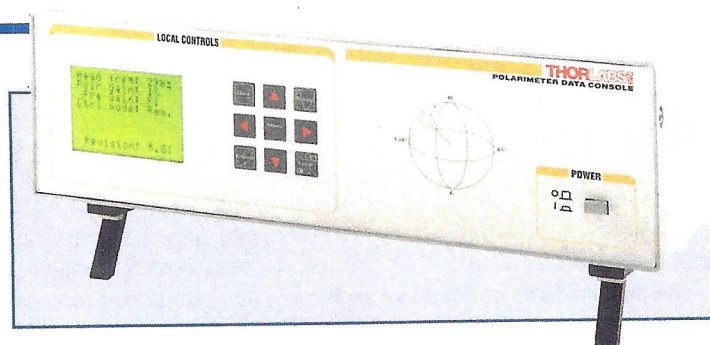


PA500 Series Polarimeter Specifications

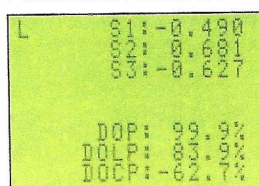
Wavelength Range	450-700nm, Model# PA510 700-900nm, Model# PA550 900-1100nm, Model# PA560 1100-1600nm, Model# PA530
Power Range	30nW-3mW
Accuracy D.O.P.	±1.00% @ Calibration Wavelength ±1.5% Over Operating Range
Measurement Rate	30Hz with Adjustable Display Update Rate
Optical Aperture	Ø8mm, Model# PA510, PA550 Ø3mm, Model# PA530, PA560 FC Fiber Optic Adapter; All Models
Communication	RS-232 to PC (a USB upgrade option will be available) RS-232 to External Device (a USB upgrade option will be available)
RS-232 Baud Rates	2400, 4800, 9600, 14400, 19200, 28800, 34800, 57600, 76800, and 115200bps
Data Acquisition	6 channel, 16-bit A/D converter
DAQ Gain	1x, 2x, 4x, and 8x
Transimpedance Gain	16K, 256K, 4.1M, and 65.5M
Operating Voltage	115VAC / 230VAC, 50-60Hz



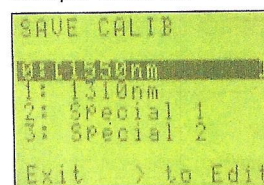
Sample PC interface screens



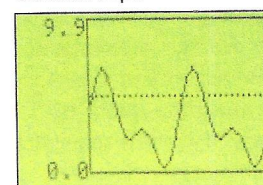
Polarization Measurements



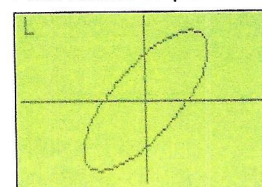
Multiple Calibrations



Oscilloscope



Polarization Ellipse



Polarimeter PMD/POL

Laser/TEC
Controllers

Laser
Mounts

WDM
Sources &
Switches

Optical
Sources &
Switches

Detectors &
Power Meters

Laser Lab
Instruments

TXP Systems
Measurement
& Control

ITEM#	\$	£	€	¥	DESCRIPTION
PA510	\$6,200.00	£5,642.00	€6,820.00	¥1,054,000	450-700nm Polarimeter, 100/120VAC
PA510-EC	\$6,250.00	£5,687.50	€6,875.00	¥1,062,500	450-700nm Polarimeter, 230VAC
PA550	\$8,500.00	£7,735.00	€9,350.00	¥1,445,000	700-900nm Polarimeter, 100/120VAC
PA550-EC	\$8,550.00	£7,780.50	€9,405.00	¥1,453,500	700-900nm Polarimeter, 230VAC
PA560	\$6,700.00	£6,097.00	€7,370.00	¥1,139,000	900-1100nm Polarimeter, 100/120VAC
PA560-EC	\$6,750.00	£6,142.50	€7,425.00	¥1,147,500	900-1100nm Polarimeter, 230VAC
PA530	\$6,400.00	£5,824.00	€7,040.00	¥1,088,000	1100-1600nm Polarimeter, 100/120VAC
PA530-EC	\$6,450.00	£5,869.50	€7,095.00	¥1,096,500	1100-1600nm Polarimeter, 230VAC

Sales: 973-579-7227