CHNSpec

DS-P500

Automatic High-Speed Polarimeter



0.01-Class High-Precision Optical Rotation Measurement
Meets QC compliance for pharmaceutical and chemical industries
Equipped with a 10.1-inch large touchscreen for operation

CHNSpec DS-P500 Automatic High-Speed Polarimeter is a fully automatic, high-precision optical analyzer designed for pharmaceutical, chemical, food, sugar, scientific research and quality inspection industries. Adopting an LED light source paired with a high-precision interference filter to output the 589 nm sodium D spectral line, combined with multi-point automatic calibration technology, the instrument enables fast and accurate measurement of optical rotation, specific rotation, concentration, sugar content and user-defined measurement modes.It delivers a full-scale response speed up to 8° /s, and can complete 6 measurements in an average of 26 seconds. All models come standard with a 10.1-inch IPS capacitive touchscreen and embedded operating system, supporting LIMS connection. Equipped with 128 GB large-capacity storage and storage capacity for up to 1500 measurement methods, it serves as an ideal solution for QC testing in modern laboratories.

Core Selling Points

01 Multi-mode High-precision Measurement

Optical rotation / Specific rotation / Concentration / Sugar content / User-defined modes; 0.01-class accuracy, minimum reading up to 0.0001° .

02 High-speed & Efficient Testing

Full-scale response: 8° /s; completes 6 measurements in an average of 26 seconds. 589 nm sodium D spectrum; capable of testing dark samples with low transmittance.

03 Intelligent Interaction & Large-capacity Storage

10.1-inch IPS touchscreen, Embedded system(LIMS can be connected); 128GB storage, stores up to 1500 measurement methods, supports multi-point automatic calibration.

04 Rich Communication Interfaces

RS232, dual USB and WiFi interfaces; compatible with LIMS system and WiFi printers, for convenient data transmission and report printing.

Applicationg Fields



Pharmaceutical Industry



Fine Chemical Industry



Food Industry



Cosmetics & Daily Chemicals



Materials Science



Universities and Research Institutes

Technical Specifications

Instrument Model	DS-P500
Measurement Modes	Optical Rotation / Specific Rotation / Concentration / Sugar Content / User-defined
Storable Measurement Methods	1500
Light Source	Light Emitting Diode (LED) + High-precision Interference Filter
Operating Wavelength	589nm (Sodium D Spectrum)
Measurement Range	±90° (Optical Rotation), ±259° Z (Sugar Content)
Minimum Reading	0.001°
Relative Error	≤0.004°
Repeatability (Standard Deviation)	≤0.002°
Zero Repeatability	0.0008°
Minimum Sample Transmittance	0.05%
Response Speed (Full Range)	8°/s
Measurement Time	Average 26 seconds for 6 measurements
Operating System	Embedded operating system (can be connected to LIMS system)
Display	10.1-inch IPS Capacitive Touchscreen
Calibration Method	Multi-point Automatic Calibration
Data Storage	128GB
Communication Interfaces	1×RS232、2×USB、WiFi
Printer Model	Compatible with WiFi Printers
Sample Tube	100/200mm Standard Type
Power Supply	220V±22V，50Hz±1Hz，250W
Instrument Dimensions	774mm×326mm×229mm
Net Weight	18.95kg
Accuracy Class	0.01 Class