

Automatic Polarimeter

Brief Introduction

Drawell Digipol-P series polarimeter is an instrument for measuring the rotation of substances. The concentration, content and purity of the substance can be determined by spectrophotometry. Drawell Automatic Polarimeter has built-in Peltier precise temperature control system, which can meet users' requirements for testing at constant temperature. The built-in automatic calibration program is optional, and the standard automatic calibration tool can be automatically calibrated from -45 degrees to +45 degrees, which fully meets the user's demand for controllable measurement accuracy in daily operation. The multi-level authority management of Drawell automatic polarimeter can meet the audit tracking.

Fields of Use

1. Automatic polarimeter is widely used in medicine, food, organic chemical industry and other fields.
2. Agriculture: analysis of ingredients such as agricultural antibiotics, agricultural hormones, microbial pesticides and starch content of agricultural products.
3. Medicine: analysis of antibiotics, vitamins, glucose and other drugs, pharmacological study of Chinese herbal medicine.
4. Food: sugar, monosodium glutamate, soy sauce and other production process control and finished product inspection, food sugar content determination.
5. Petroleum: analysis of mineral oil, monitoring of petroleum fermentation process.
6. Fragrance: analysis of essential oils.
7. Health services: analysis of clinical diabetes in hospitals

Features

- 1: Built-in Peltier temperature control, improve accuracy and stability;
- 2: there are rotation/specific curl/concentration/sugar degree and custom mode;
- 3: LED cold light source instead of the traditional sodium light lamp and halogen tungsten lamp;
- 4: Compliance with 21CFR Part 1 audit trail, pharmacopoeia and electronic signature;
- 5: Support network printing, support data statistical retrieval;
- 6: Multi-level authority management, authority can be freely configured;
- 7: 10 inch touch color screen, user-friendly operation interface;
- 8: The system comes with automatic calibration system.
- 9: Comply with GLP GMP certification



Parameters

Model	DigiPol-P610	DigiPol-P630	DigiPol-P910	DigiPol-P930
Measurement mode	Rotation, specific curl, concentration, sugar content and custom formula	Rotation, specific curl, concentration, sugar content and custom formula	Rotation, specific curl, concentration, sugar content and custom formula	Rotation, specific curl, concentration, sugar content and custom formula
light source	LED cold light source + high precision interference filter	LED cold light source + high precision interference filter	LED cold light source + high precision interference filter	LED cold light source + high precision interference filter
Working wavelength	589.3nm	589.3nm	589.3nm	589.3nm
Test function	Single, multiple and continuous measurement	Single, multiple and continuous measurement	Single, multiple and continuous measurement	Single, multiple and continuous measurement
Measuring range	Optical rotation $\pm 90^\circ$ Sugar $\pm 259^\circ$ for Z	Optical rotation $\pm 90^\circ$ Sugar $\pm 259^\circ$ for Z	Optical rotation $\pm 90^\circ$ Sugar $\pm 259^\circ$ for Z	Optical rotation $\pm 90^\circ$ Sugar $\pm 259^\circ$ for Z
Minimum reading	0.001°	0.001°(0.0001°Optional)	0.001°(0.0001°Optional)	0.0001°
Accuracy	$\pm 0.004^\circ$	$\pm 0.002^\circ$	$\pm 0.002^\circ$	$\pm 0.002^\circ$
Repeatability	Standard deviation s) 0.002° (Optical rotation)	(Standard deviation s) 0.002° (Optical rotation)	(Standard deviation s) 0.002° (Optical rotation)	(Standard deviation s) 0.002° (Optical rotation)
Temperature control range	10°C-50°C (Peltier temperature control)	10°C-60°C(Peltier)	10°C-60°C(Peltier)	10°C-60°C(Peltier)
Temperature resolution	0.1°C	0.01°C	0.01°C	0.01°C
Temperature control accuracy	$\pm 0.1^\circ\text{C}$	$\pm 0.03^\circ\text{C}$	$\pm 0.03^\circ\text{C}$	$\pm 0.03^\circ\text{C}$
Display method	8-inch TFT true color touch screen	8-inch TFT true color touch screen	10.4-inch TFT true color touch screen	10.4-inch TFT true color touch screen
Standard test tube	200mm,100mm ordinary type,100mm temperature control type (optional Hastelloy alloy temperature control tube of various lengths)	200mm,100mm ordinary type,100mm temperature control type (optional Hastelloy alloy temperature control tube of various lengths)	200mm,100mm ordinary type,100mm temperature control type (optional Hastelloy alloy temperature control tube of various lengths)	200mm,100mm ordinary type,100mm temperature control type (optional Hastelloy alloy temperature control tube of various lengths)
Transmittance	0.1%	0.01%	0.01%	0.01%
data storage	32G	64G	64G	128G
Automatic calibration	YES	YES(standard with a standard pipe)	YES(standard with 2pcs standard pipe)	YES(standard with 6pcs standard pipe)
Audit trail	YES	YES	YES	YES
Electronic signature	YES	YES	YES	YES
Multi-function search	YES	YES	YES	YES
Print	General-purpose printer, WiFi printing	General-purpose printer, WiFi printing (Standard with a printer)	General-purpose printer, WiFi printing (Standard with a printer)	General-purpose printer, WiFi printing (Standard with a HP printer)
Method library	YES	YES	YES	YES
cloud service	Optional	YES	YES	YES
MD5 code verification	Optional	YES	YES	YES
Custom formula	Optional	YES	YES	YES
User Management	YES / Four-level authority management	YES / Four-level authority management	YES / Four-level authority management	YES / Four-level authority management

Export in multiple file formats	PDF & Excel	PDF & Excel	PDF & Excel	PDF & Excel
Communication Interface	USB, RS232, VGA, Ethernet	USB, RS232, VGA, Ethernet	USB, RS232, VGA, Ethernet	USB, RS232, VGA, Ethernet
Instrument level	0.01 level	0.01 level	0.01 level	0.01 level
Other options	Each capacity 50mm and 200mm long temperature control tube, mouse, keyboard connection, general purpose printer/wireless network printer	Each capacity 50mm and 200mm long temperature control tube, mouse, keyboard connection, general purpose printer/wireless network printer	Each capacity 50mm and 200mm long temperature control tube, mouse, keyboard connection, general purpose printer/wireless network printer	Each capacity 50mm and 200mm long temperature control tube, mouse, keyboard connection, general purpose printer/wireless network printer
Power supply	220V ±22V, 50Hz ± 1Hz, 250W	220V ±22V, 50Hz ± 1Hz, 250W	220V ±22V, 50Hz ± 1Hz, 250W	220V ±22V, 50Hz ± 1Hz, 250W
Weight	28kg	28kg	28kg	28kg