Automatic Polarimeter

Guide Line
Polarimeter

1.Which index we should pay attention to when choose Polarimeter?

Accuracy and Repeatability is the most important index of the Polarimeter. If we choose temperature control type Polarimeter, so the precision of temperature control is very important. If the temperature control accuracy is not high enough, stability is not good enough, that would be better to external connect water bath for temperature control.

2.What is the difference between Sodium and LED as light source for Polarimeter?

First, all optical rotation measurement must be fixed single wavelength. Sodium lamp wavelength is 589.3nm in the air, LED lamp with special filter can also reach 589.3nm, have the same effect with sodium lamp. Second, service life of sodium lamp generally is around 50-200 hours, and LED lamp service life is generally around 5000 hours. Furthermore, the price of LED lamp is lower than Sodium lamp, so the LED lamp replacing Sodium lamp has been an inevitable trend.

3.What kind of sample requires temperature control during testing?

Theory, all sample testing has certain requirements for the temperature. But there are some substances such as sugar, itself has a complete temperate coefficient correction table, or users do not ask too much for the final results, data deviation due to temperature can be negligible, can buy the Polarimeter without temperature control. But except for this, all tests have strict requirements for temperature, most of samples which need to measure have not be determined temperature compensation coefficient, at the same time, GMP also have strictly formulate for test temperature, so it needs to choose the Polarimeter with temperature control.

4. What facilitation advanced true-color VGA touch screen can provide us during use?

Advanced true-color VGA touch screen offering user the comfortable sense of manipulation is irreplaceable. It will be closer to the user' s habit and more convenient for the user to manipulate instrument freely.

5.What' s the advantage automatic calibration function of Polarimeter can bring to User?

Polarimeter with automatic calibration function can make user always know the operation condition, adjust measurement accuracy of instrument in time, ensuring the instrument throughout achieve a good working state.

6.How P850 control temperature precisely?

P850 built-in Peltier precise temperature control system, through a variety of temperature sensor, semiconductor temperature sensor and PID temperature control circuit, ensure the instrument temperature fluctuation is not more than 0.1 degrees, the precision is not more than 0.3 degrees, a very precise temperature control environment, fully meet the requirements of various kinds of samples test for temperature accuracy.

7.How many kind of Measurement mode does Polarimeter have?

Polarimeter mainly has four modes: Optical rotation, Specific optical rotation, Concentration and Brix. At present our company launched several instruments with the function that the four modes freely switch, eliminating user complicated calculation.

8.How long the polarimter need to be calibrated for ?

The user can choose a weekly or monthly calibration according to the frequency of use and the requirement of accuracy. If user use measure at a certain section angle, user can choose a quartz standard optical tube which is the closest to measurement angle for calibration every day.

9.What effect does the external environment have on the measurement result of Polarimeter?

Because the temperature has effect on measurement result, even in the condition of temperature control, also suggest that the room temperature close to 20 degree, it would better for the working environment can be 15-20 degrees, avoiding to difference in temperature between environment temperature and testing temperature too big, which caused measurement result inaccurate.

10.What' s the advantages of the Peltier temperature control system?

Compared with external connection water bath, Peltier temperature control system has the advantages of small control temperature volume and fast speed. Its convenient Peltier temperature control system for user to set various of testing requirements with built in , avoiding error or mistake cause by multiple instruments coordinate working together.

P810/P810A/P850/P850A Automatic Polarimeter
P800 Polarimeter

Automatic Polarimeter P850/P850A includes built-in Peltier precise temperature control system. P series Polarimeter with automatic photoelectric inspection technology and WINDOWS HMI system, boasts accurate and reliable measurement, convenient operation and so on. By detecting the optical rotation, the density, content and purity of substances etc. can be analyzed and determined. It' s widely used in medicine, petroleum, food, chemicals, flavors, spices, sugar making, other industries and universities and research institutes.

Characteristic

- Large color touch screen display and innovative WINDOWS software interface give extremely convenient device operation and data acquisition.
- A variety of measurement modes are optional, without using complicated manual calculation.
- Extremely large storage capacity can store up to 1000 groups of data information automatically.

Industries P800/P810/P810A/P850/P850A

Ultra long life light source
It adopt High brightness LED lights with service life exceeding 100000 hours, less time ready for use, save your cost and time.

Automatic Calibration
P810A/P850A built in automatic calibration system, it provides much higher accuracy result, much easier for calibration.

Automatic temperature control system
P850/P850A adopts peltier temperature control system, make sure the whole testing with accuracy and constant temperature.

Note: "●" with the same technical index; "—" without

Technical data:

	P810	P810A	P850	P850A
Measuring range	±89.99°Arc	●	●	●
	±259°Z	●	●	●
Min.reading	0.001°(optical rotation)	●	●	●
Accuracy	±0.01° (-45°≤ optical rotation ≤ +45°) ±0.02° (optical rotation< - 45° or optical rotation> + 45°)	●	●	●
Repeatability (standard deviation s)	0.002°(optical rotation)	●	●	●
Measurable sample min.transmittance	1%	●	●	●
Working wavelength	589.3nm	●	●	●
Temperature control mode	-	-	built-in semiconductor	●
Temperature control range	-	-	15℃--30℃	●
Temperature control accuracy	-	-	±0.3℃	●
Temperature resolution	-	-	0.1℃	●
Interface	USB and RS232	●	●	●
Data storage capacity	1000 pieces	●	●	●
Display mode	5.6" TFT touch screen	●	●	●
Power supply	220VAC±10% 50Hz	●	●	●
Sample Chamber	Accept sample tubes up to 200mm			
Power	250W	●	●	●
Net weight	24kg	24kg	26kg	26kg
Calibration mode	-	automatic calibration	-	automatic calibration
Dimension	708mmX330mmX287mm			