

Digital Automatic Polarimeter - GBB-P701



A polarimeter is a scientific instrument used to measure the angle of rotation caused by passing polarized light through an optically active substance.

Some chemical substances are optically active, and polarized (uni-directional) light will rotate either to the left (counter-clockwise) or right (clockwise) when passed through these substances. The amount by which the light is rotated is known as the angle of rotation. The angle of rotation is basically known as observed angle.

TECHNICAL SPECIFICATIONS

Test Modes	Optical rotation, sugar degree
Light source	LED
Wavelength	589.44nm
Measurement	±45° (optical rotation) ±120° Z (sugar)
Minimum indicating value	0.001° (optical rotation) 0.01° Z (sugar)
Accuracy	±(0.01+ measurement value x 0.05%)° (optical rotation) ±(0.03 + measurement value x 0.05%)° Z (sugar)
Repeatability	<0.002° (optical rotation)
Display	LCD
Test tube	200mm, 100mm
Sample transmittance	> 1%
Interface	Rs232
Operation voltage	220V ± 22V, 50Hz
Overall Dimensions	730mm x 480mm x 470mm
Weight (Gross)	36kg
Software	Yes

APPLICATIONS

Pharmaceutical Industry

- Monitoring chemical processes
- Characterizations of new synthetic substances
- Hospitals & Pharmacies

Chemical Industry

- Determination of changes in the configuration
- Monitoring chemical processes

Sugar Industry

- Quality control of original and end product
- Determination of fructose and glucose
- Quality control

Food Industry

SALIENT FEATURES

- Automatic Polarimeter instrument used to measure specific optical rotation of optically active substance
- Measuring optical rotation and sugar degree
- Storage of three times results
- Built in auto controlling system with servomechanism
- Calculation of average values
- Automatic Measurement
- Measurement of dark colored sample
- RS232 Interface

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Laboratory Science

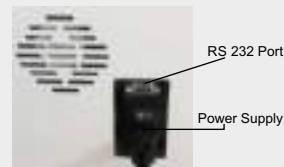
ISO 9001 : 2015
Certified Company



The Automatic polarimeter provide excellent application modes Without Sacrificing accuracy and precision it is an ideal instrument for various application.

Measuring Modes

1. Optical Rotation
2. Sugar Degree



Sample compartment

Standard Accessories

- Software Kit : RS232 Cable, Software CD
- Main Lead
- Fuse
- Instruction manual



Monitoring Display

Optional Accessories

Sample Tubes 100mm, 200mm



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Automatic Polarimeter With Touch Screen GBB- P702

The Automatic touch screen polarimeter provide excellent application modes Without Sacrificing accuracy and precision it is an ideal instrument for various application.



TECHNICAL SPECIFICATIONS

4 Test modes	Optical rotation, specific rotation sugar degree and concentration
Light source	LED
Measurement range	$\pm 45^\circ$ (optical rotation $\pm 120^\circ$ Z(sugar))
Wavelength	589.3nm
Minimum indicating value	0.001° (optical rotation)
Accuracy	a) $\pm 0.01^\circ$ ($-15^\circ < \text{optical rotation} < +15^\circ$) b) $\pm 0.02^\circ$ (optical rotation $< -15^\circ$ or optical rotation $> +15^\circ$)
Repeatability	0.002° (optical rotation)
Display	Color Touch Screen
Test tube	200mm, 100mm
Sample transmittance	> 1%
Interface:	USB & RS232
Operation voltage	220V \pm 22V, 50Hz
Overall Dimensions	850mm x 500mm x 470mm
Weight(Gross)	38kg
Software	Yes

APPLICATIONS

Pharmaceutical Industry

- Monitoring chemical processes
- Purity control and determination of concentrations
- Characterizations of new synthetic substances
- Hospitals & Pharmacies

Chemical Industry

- Purity control and determination of concentrations
- Analysis of optically-active components (qualitative and quantitative)
- Determination of changes in the configuration
- Monitoring chemical processes

Sugar Industry

- Quality control of original and end product
- Determination of fructose and glucose
- Quality control

Food Industry

- Determination of concentration
- Purity control
- Quality control

CHARACTERISTICS

- Touch Screen Colour Display
- Temperature Display
- Need not prewarm when turning on.
- Measuring specific rotation, optical rotation, sugar degree and concentration
- Automatic repetition-measurement for 6 times, and calculation of average value and means square root
- Measurement of dark-colored sample
- USB & RS232
- Response Time 3%/sec.
- Faraday mangneto-optical modulator
- Polarizer Polarizing film
- Digital Polarimeter based on Optical null principle
- No warm-up time is required when instrument is switched on
- Insulated Sample chamber to keep sample temp. constant
- Photodiode Detector
- Purity method - saccharic concentration

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There are four Measuring Application modes

1. OPTICAL ROTATION
2. SPECIFIC ROTATION
3. CONCENTRATION
4. SUGAR DEGREE



Sample compartment

Optical Rotation

- The Optical Measure mode Measuring.
- The Optical Rotation of Sample

Specific Rotation

- The Specific Rotation Measure Mode Measuring.
- The Specific Rotation of Sample.

Concentration

- The Concentration Measure Mode Measuring.
- The Concentration Value of the Sample.

Sugar Degree

- The Sugar Degree Measure Mode Measuring
- The Sugar Scale Degree of Sample of Sugar Solution

Standard Accessories

- Software Kit : RS232 Cable, Software CD
- Main Lead
- Fuse
- Instruction manual

Optional Accessories

Sample Tubes 100mm, 200mm



Optical rotation, Measuring modes: modes: optical rotation, specific rotation, concentration and Sugar degree.



press 'tubelength' to change the length



Press 'ReMeas' to test the sample



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TECHNICAL SPECIFICATIONS

Measuring Mode	Optical Rotation, Specific Rotation, Sugar Degree and Concentration (Custom)
Frequently used methods	30
Light Source	Light-emitting diode(LED) (up to 10,000 hours) + precision interference filters
Working Wavelength	589.4nm (Sodium D Spectrum)
Measurement Range	±90° (Rotation) ±259° Z (Sugar)
Minimum Reading	0.001°
Accuracy	± 0.004°
Repeatability	≤ 0.001°
Min. Transmission of samples able to be measured	0.1%
Response Speed	8° /S
Measurement Time	6 Time/26S
Sample Temperature Control	Yes
Temperature Control Mode	Peltier (Built-in)
Temperature Control Range	10-50° C
Temperature Control Accuracy	± 0.1° C
Display	8-inch color dot matrix touch LCD
Calibration Method	Multi-point automatic calibration
Data Storage	5000 sets of data
GMP Regulations	Qualified
Output communication interface	USB / Printer / Ethernet
Test Tubes	200mm 100mm (regular) 100mm(temp control)
Micro Tubes	Available
Weight(Gross)	36kg
Dimensions	745mm x 409mm x 295mm

Automatic Polarimeter With Peltier - GBB-P705

The polarimeter is an instrument used for determining the Optical rotation of substances. In this way, the concentration, content, purity, etc of certain substances can be find out. Therefore, the polarimeter has become one of the most useful instruments in laboratories of sugar industry, pharmaceutical industry, oil refining, foodstuff industry, chemical industry, universities and scientific research field.



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- Monitoring chemical processes

Sugar industry

- Quality control of original and end product
- Determination of fructose and glucose

Food industry

- Determination of concentration
- Purity control
- Quality control

SALIENT FEATURES

- Touch screen colour display
- Temperature display
- Faraday magneto-optical modulator
- Polarizer Polarizing film
- Digital Polarimeter based on Optical null principle
- No warm-up time is required when instrument is switched on
- Measuring multiple scales - specific rotation, optical rotation,
- Sugar degree and concentration
- Automatic repetition-measurement for 6 times, and calculation of average value.
- Measurement of dark-coloured sample
- Response time 30/sec.
- Insulated Sample chamber to keep sample temp. constant
- User can set retesting sample between 1 to 6 Photodiode Detector
- Data display - date, time, measuring mode, length of tube, temp. test time, measured value (1 - 6 values), average value,
- Purity method - saccharic concentration



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