



Anton Paar

:: Superior Optical Instruments



MCP 300 Sucromat | MCP 500 Sucromat

Modular Circular Polarimeter

General

The MCP 300 Sucromat is an automatic saccharimeter with an internal resolution of 0.001 °Optical Rotation corresponding to 0.003 °Z International Sugar Scale.

MCP Sucromat instruments have an unsurpassed accuracy and stability of the results even under adverse conditions such as fluctuating line voltage, dark samples or high ambient temperatures.

The MCP 500 Sucromat (VIS/NIR model) measures both conventionally prepared samples and samples prepared without lead. The latter frequently produce colored filtrates that are too dark for measurement at visible (VIS) wavelengths, but transparent enough for near infrared (NIR) light, at which extremely dark samples can be analyzed. The method, based on NIR polarimetry, is applicable to all raw sugars, white sugars, and speciality sugars that require clarification.

Specifications	
Measuring Scale	<ul style="list-style-type: none"> ▶ °Z International Sugar Scale ▶ °Optical Rotation ▶ % Sucrose ▶ % Glucose ▶ % Purity
°Z International Sugar Scale	MCP 300/500 Sucromat
Measuring range	± 259 °Z
Resolution	0.01 °Z
Accuracy	± 0.01 °Z
Repeatability	± 0.01 °Z
Optical wavelengths	MCP 300 Sucromat: 589 nm, MCP 500 Sucromat: 589 and 880 nm (546 nm on request)
Light source	Tungsten halogen lamp, 6 V, 20 W, average life 2000 h
Sensitivity control	Permits measurement of colored samples. Optical Density (OD) data valid for raw sugar: VIS mode: OD 4.0, NIR mode: 6.0*
Measurement time	Slewing rate 30 °Z/sec, settling time 5 sec, approximately 12 sec for balancing from 0 °Z to 100 °Z
Sample temperature display and compensation	Pt100 sensor input for sample temperature measurement up to 0.1 °C. Automatic °Z data correction to 20 °C at user's option
Sample cells	Standard length: 200 mm, optionally: 100 mm, 50 mm, flange diameter: 30 mm, material: stainless steel or glass
Adjustment	Instrument can be adjusted by quartz control plate. Access to adjustment menu is protected by authorization code
Display	TFT Touchscreen, 6.5", 640 x 480 Px
Controls	Touchscreen, softkeys, optional keyboard, mouse and bar code reader
Interfaces	4 x USB, Ethernet, VGA, CAN
Dimension (L x W x H) and weight	754 x 392 x 231 mm, 32 kg
Power requirements	Self-adapting to any mains voltage of AC 100-240 V, 50/60 Hz
Power consumption	70 - 100 VA
Standards	ICUMSA, OIML, Australian Standard K157

*Dark sugar solutions have a much lower Optical Density at 880 nm than at 589 nm. Therefore sugar solutions with OD 6.0 at 589 nm can be measured in NIR-mode at 880 nm.

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Specifications subject to change without notice

Your distributor:

Instruments for:

Density & concentration measurement	Colloid science
Rheometry and viscometry	High-precision temperature measurement
Sample preparation	Refractometry
Microwave synthesis	Polarimetry
	X-ray structure analysis