



Anton Paar

:: Superior Optical Instruments



MCP 300 | MCP 500

Modular Circular Polarimeter

General

The MCP is an modular circular polarimeter with a resolution of up to 0.0002 °Optical Rotation and an excellent accuracy better than 0.003° over the entire measuring range. The accuracy can be verified by certified quartz standards.

The MCP combines opto-mechanical precision with modern design and user friendliness resulting in excellent performance and reliability. The MCP models operate at a wavelength of 589 nm and

comply with international standards such as CFR 21 part 11, OIML or pharmacopeia. For research applications in the pharmaceutical industries, the MCP can be supplied with up to eight measuring wavelengths in the visible and UV range.

The MCP offers numerous measuring ranges for optical rotation, specific rotation and concentration.

Specifications		
Measuring scales	<ul style="list-style-type: none"> ▶ °Optical Rotation ▶ °Specific Rotation ▶ % Concentration (g/mL, g/100 mL, g/L) ▶ % Sucrose (g/100 mL) ▶ % Glucose (g/100 mL) ▶ °Z International Sugar Scale 	
°Optical Rotation*	MCP 300	MCP 500
Measuring range	± 89.9°	± 89.9°
Resolution	0.001°	0.0002°
Accuracy	± 0.003°	± 0.002°
Reproducibility	± 0.002°	± 0.001°
Optical wavelengths	Up to eight wavelengths, standard: 589 nm, optional: 365, 405, 436, 546, 578 nm, other wavelengths on request	
Light source	Tungsten halogen lamp, 6 V, 20 W, average life 2000 h	
Sensitivity control*	Compensates light attenuation up to an Optical Density of OD 4.0	
Response time	0° to 89.9° in 12 sec (resolution 3 digits)	0° to 89.9° in 15 sec (resolution 4 digits)
Sample temperature display	Pt100 sensor input for sample temperature measurement	
Resolution	0.1 °C	0.01 °C
Accuracy	± 0.1 °C	± 0.03 °C
Sample cells	Standard length: 100 mm, various types from 200 to 2.5 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 (70.6 lbs)	
Power requirements and consumption	Self-adapting to any mains voltage of AC 100 - 240 V, 50/60 Hz, 70 - 100 VA	
Compliance with international standards	Pharmacopoea, CFR 21 part 11, OIML	

* at 589 nm and standard conditions

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Instruments for:

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

Specifications subject to change without notice

Your distributor: