

# MCP 100 | MCP 150

Modular Compact Polarimeters

::: Superior Optical Instruments



# Your Promise – Anton Paar's Solution

You have always made sure that your optically active substances meet all quality standards. Of course you want to keep your promise to the customer and meet all applicable standards in a fully traceable fashion.

Regulations in your field are constantly growing and requirements have changed. Most older polarimeters no longer give you the safety and traceability you need. In addition, your standard procedures require defined temperatures which you can only reach with a thermostatic temperature control.

Anton Paar's Modular Compact Polarimeters MCP 100 and MCP 150 help you to **reach all required targets automatically with the latest technology** – at a truly **budget-friendly price** and with **a small size**. MCP 100/150 is the right choice for pharmaceutical applications, universities or the flavor and fragrance industry.

## CHOOSE ONE: MEASURE COMPACTLY

### MCP 100

"For economic routine analysis"

- ▶ Ease of use
- ▶ Accuracy of  $0.01^\circ$  optical rotation
- ▶ Complies with all national and international pharmacopoeias
- ▶ Partially compliant with 21 CFR Part 11 (excl. electronic signature)
- ▶ Interfaces: USB, RS232, Ethernet, CAN bus
- ▶ 3 default measuring modes (optical rotation, specific rotation, concentration)

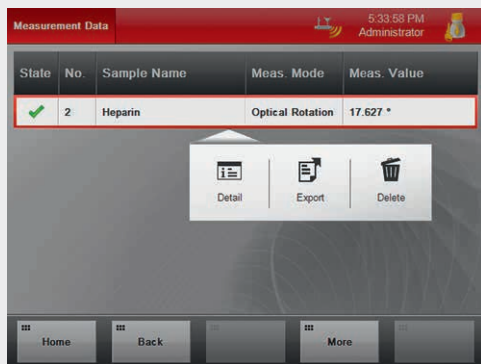


### MCP 150

"For convenient analysis and full compliance"

- ▶ Increased accuracy of  $0.005^\circ$  optical rotation
- ▶ Multiple measurements of up to 5 single measurements incl. mean and standard deviation
- ▶ 3 default measuring modes (optical rotation, specific rotation, concentration) plus 4 customizable scales
- ▶ Complies with all national and international pharmacopoeias
- ▶ Full 21 CFR Part 11 compliance incl. electronic signature
- ▶ Interfaces: USB, RS232, Ethernet, CAN bus
- ▶ LIMS and FTP connectivity





State	No.	Sample Name	Meas. Mode	Meas. Value
✓	2	Heparin	Optical Rotation	17.527 °

## Convenient

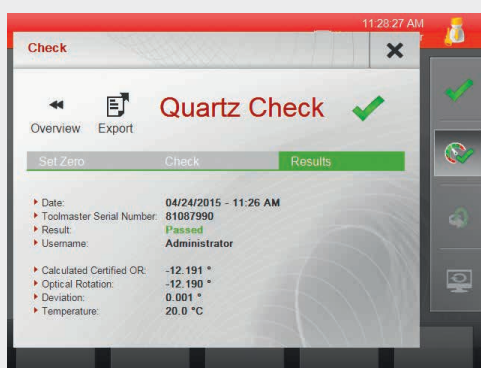
With its extremely compact design, MCP 100/150 requires next to no space and fits into any laboratory. The instrument is **easy to operate** – simply switch it on, measure your sample and get correct results within seconds.

You no longer need to write down results in the laboratory book – an **internal data memory** ensures that no data is lost. The measured data can be **automatically exported** to a connected printer or to a server via Ethernet. MCP 100/150 offers the possibility to disable the internal data storage with the "non-storage mode". This makes validation in the pharmaceutical industry easier because of classification as "category 1".

## Reliable

MCP 100/150 **complies with all national and international pharmacopoeias**. Defined user hierarchies ensure that only authorized personnel operates the instrument. MCP 100/150's **Audit Trail function** clearly and irrevocably documents every instrument interaction as required by e.g. 21 CFR Part 11. MCP 150 additionally offers an electronic signature to traceably sign the measured data and a freely **definable user group administration**.

MCP 100/150 provides a fast and stable **automatic Peltier temperature** control which speeds up the measurement and entirely eliminates the risk of measurement errors due to inaccurate sample temperature. The sample temperature is precisely measured and wirelessly transferred to the instrument via Toolmaster function (Patented US: 8,908,179 B2).

Check	
Date:	04/24/2015 - 11:26 AM
Toolmaster Serial Number:	81087990
Result:	Passed
Username:	Administrator
Calculated Certified OR:	-12.191 °
Optical Rotation:	-12.190 °
Deviation:	0.001 °
Temperature:	20.0 °C

## Safe

MCP 100/150 can be automatically adjusted and calibrated with Toolmaster™ quartz control plates. The instrument guides you safely and easily through the required process and all relevant parameters are automatically transferred into the instrument with wireless technology. The result: no data input errors, seamless documentation and full traceability.

MCP 100/150 offers different safe solutions for the data export of measured data (MCP 150 additionally provides export of Audit Trail, check and adjustment results). LIMS and FTP connectivity are built-in features.

# Proven technology – packed into a powerful compact polarimeter.

# Specifications

MCP 100		MCP 150
Measuring scales	Optical rotation, concentration, specific rotation	Optical rotation, concentration, specific rotation, customizable scales
Measuring range	±89.9°	±89.9°
Resolution	0.001°	0.001°
Accuracy	±0.01°	±0.005°
Repeatability	±0.01°	±0.005°
Wavelength	589 nm	589 nm
Light source	LED, with average lifetime of 100 000 hours	
Temperature control & measurement		
Sensor	PT 100 sensor for sample temperature measurement inside the cell or quartz control plate; wireless transfer to the instrument	
Accuracy	±0.2 °C	±0.1 °C
Temperature control	Peltier system for automatic temperature control	
Temperature control range	20 °C and 25 °C	15 °C* to 35 °C
Dimensions, power requirements, interfaces		
Dimensions (L x W x H)	370 mm x 320 mm x 130 mm (14.6 in x 12.6 in x 5.1 in)	
Weight	8.6 kg (19 lbs)	
Power management	Power supply self-adapting to any mains voltage AC 100 to 240 VAC, 50/60 Hz	
Power consumption	typ. 70 VA, max. 120 VA	
Interfaces	USB, RS232, Ethernet, CAN bus Easy connection of keyboard, mouse, printer, bar code reader and networks	
Accessories		
Sample cells	Sample cells from 2.5 mm to 100 mm with wireless temperature measurement	
Quartz control plates	Automatic identification of the quartz control plate and automated wireless transfer of reference parameters into the instrument	

\* max. 15 °C below ambient temperature

## Features

	MCP 100	MCP 150
Toolmaster™ function	●	●
Audit trail	●	●
Access control	●	●
User levels	●	●
User group administration	○	●
Electronic signature	○	●
Multiple measurement	○	●
21 CFR Part 11 compliance	ⓘ	●

○ not available | ⓘ partly available | ● standard





