

Technical Data - MCP 5100/5300/5500

Standard methods
AOAC 920.190, AOAC 970.57, AOAC 930.36, AOAC 920.184, AOAC 920.189, AOAC 920.188, AOAC 920.182, AOAC 920.82, AOAC 926.11, AOAC 898.02, AOAC 920.139, Ph. Eur. 2.2.7 - Optical rotation, USP 781 - Optical rotation, AOAC 965.31, AOAC 925.52, AOAC 896.01, AOAC 925.47, AOAC 896.02, AOAC 920.190

	MCP 5100	MCP 5300	MCP 5500	MCP 5500 MW 325
Measuring scales	°Optical Rotation, °Optical Rotation (cell-length corrected), °Specific Rotation, °Specific Rotation (cell-length corrected), % concentration (g/100 mL, g/L, g/100 cm ³ , kg/m ³), °International Sugar scale (not temperature-compensated), mathematical functions and user-definable scales			
Measuring range	± 89.9°	± 89.9°	± 89.9°	± 89.9°
Resolution	0.001° (0.0001° optional)	0.001° (0.0001° optional)	0.0001°	0.0001°
Accuracy	± 0.0025°	± 0.0020°	< 0.0020°	< 0.0020° (589 nm)
Repeatability	± 0.002°	± 0.002°	± 0.001°	± 0.001°
Wavelengths	589 nm and optionally up to eight wavelengths. Standard spectral wavelengths (365, 405, 436, 546, 578, 633, 880 nm), customer-specific wavelengths on request			
Light source	LED light source from 50 000 up to 100 000 hours lifetime for all wavelengths (325 nm to 880 nm)			
Sensitivity	Optical Density (OD) of 4.0			Optical Density (OD) of 4.0 at 589 nm
Temperature control and measurement:				
Sensor	PT100 sensor for sample temperature measurement inside the cell or quartz control plate; wireless transfer to the instrument			
Resolution	0.1 °C	0.01 °C	0.01 °C	0.01 °C
Accuracy	± 0.1 °C	± 0.05 °C	± 0.03 °C	± 0.03 °C
Temperature control range	20 °C + 25 °C	10 °C to 45 °C		
Interfaces	4 USB, RS232, Ethernet, VGA, CAN bus. Easy connection of keyboard, mouse, printer, bar code reader and networks.			
Accessories:				
Sample cells	ToolMaster™: Wireless automatic identification of sample cells via RFID, sample cell path length from 2.5 mm to 200 mm			
Quartz control plates	Automatic identification of the quartz control plate and automated wireless transfer or reference parameters into the instrument			