

MC500 Multi-Parameter Colorimeter



Instrument Overview

Introducing the MC500™ Multi-Parameter Colorimeter from Orbeco-Hellige. This versatile new instrument tests for a wide range of water quality parameters from Alkalinity to Zinc and is perfect for use in either the field or laboratory.

Using Orbeco's "Open Reagent System" (which uses Powder Pack™, tablet, liquid and ampoule reagents), the MC500 features an industry-leading 6 LED photodetector array that allows the instrument to conduct over 70 pre-programmed test methods and 20 user defined methods.

Up to 1,000 data sets can be stored in the instrument's internal memory and transferred to computer using an infrared dataport.

The MC500 instrument comes with 3x24 mm sample cells, 3x16 mm sample cells, 16 mm tube adapter, 13 mm tube adapter, carrying case, batteries and operators manual.



MC500 Features and Benefits

Industry-leading 6 wavelength photo detector array increases instrument capabilities and accuracy

- Wavelengths: 430 , 530 , 560 , 580 , 610 & 660 nm
- Optics: Light-emitting diodes and photosensor-intensifier featuring automatic wave length selection

Intuitive and user-friendly interface for excellent data handling capabilities

- User- favorites menu – select only the tests you use!
- Acid and solvent resistant, touch-sensitive keypad with audible feedback
- 1,000 data set storage capability to assure good record keeping
- Customizable with user defined methods:
 - 10 with calibration point input
 - 10 with polynomial input
- Optional infrared data transfer system to download data to a computer
- New method downloads via internet
- User interface in English, Spanish, French, German and Italian

Compact and lightweight for laboratory, plant and field use

- Size: 8.25 x 3.75 x 1.75" (210 x 95 x 45 mm)
- Weight: 17.5 Ounces (500 g)
- Power supply: 4 AA Batteries with auto-off function
- Ergonomic waterproof design
- CE Approval

MC500 Tests and Reagents

Parameter	Method	Range	Number of Tests	Part Number
Acid Demand, pH 4.3	Acid / Indicator	0.1-4 mmol/L	100	RT321-0
Alkalinity-m (total)	Acid / Indicator	5-200 mg/L	100	RT321-0
Alkalinity-p	Acid / Indicator	5-500 mg/L	100	RT323-0
Aluminum	Eriochrome cyanine R (tablet)	0.01-0.3 mg/L	100	RS5460
Aluminum	Eriochrome cyanine R (powder)	0.01-0.25 mg/L	100	RS5000
Ammonium	Indophenole	0.02-1 mg/L	100	RS5540
Ammonium	Salicylate	0.01-0.8 mg/L	100	RS5500
Ammonium LR	Salicylate	0.02-2.5 mg/L	50	RS5600
Ammonium HR	Salicylate	1-50 mg/L	50	RS5650
PHMB (Biguanide)	Buffer/Indicator	2-60 mg/L	100	RT610-0
Bromine	DPD	0.05-13 mg/L	100	RT106-0
Boron	Azomethine	0.1-2 mg/L	100	RS5050
Chloride	Silver nitrate / turbidity	0.5-25 mg/L	100	RS5910
Chlorine	DPD	0.01-6 mg/L	100	RS1060
Chlorine	DPD	0.02-4 mg/L	100	RS1056
Chlorine HR	Potassium Iodide / Acid	5-200 mg/L	100	RS5480
Chlorine, Free	DPD	0.02-2.00 mg/L	100	RP010-0
Chlorine, Total	DPD	0.02-2.00 mg/L	100	RP012-0
Chlorine UHR	Potassium Iodide	0.02-16% NaHCl	100	RS5480
Chlorine Dioxide	DPD	0.05-11 mg/L	100	RS2170
COD LR	Dichromate / H ₂ SO ₄	0-150 mg/L	25	TT20720
COD MR	Dichromate / H ₂ SO ₄	0-1,500 mg/L	25	TT20721
COD HR	Dichromate / H ₂ SO ₄	0-15,000 mg/L	25	TT20722
Copper	Biquinoline	0.05-5 mg/L	100	RS3550
Copper, Free	Bicichoninate	0.05-5 mg/L	100	RP030-0
Cyanide	Pyridine-barbituric acid	0.01-0.5 mg/L	260	L2418875
Cyanuric Acid	Melamine	2-160 mg/L	100	RT132-0
DEHA	PPST (tablet)	20-500 µg/L	100	RS3220
DEHA	PPST (powder)	20-500 µg/L	100	RS6000
Fluoride	SPADNS	0.05-2 mg/L	~125	L467481
Hardness, Calcium	Murexide	50-900 mg/L	100	RT565-0
Hardness, Total	Metallphthalein	2-50 mg/L	100	RT566-0
Hardness, Total HR	Metallphthalein	20-500 mg/L	100	RT566-0
Hydrazine	Dimethylaminobenzaldehyde	0.05-0.5 mg/L	100	RS2910
Hydrazine	Dimethylaminobenzaldehyde	0.01-0.6 mg/L	~100	L531200
Hydrazine	PDMAB	0.01-0.7 mg/L	30	L380470
Hydrogen Peroxide	DPD / Catalyst	0.03-3 mg/L	100	RT238-0
Iodine	DPD	0.05-3.6 mg/L	100	RT106-0
Iron (II, III) soluble	PPST	0.02-1 mg/L	100	RS5370
Iron (II, III) soluble	1,10-Phenanthroline	0.02-3 mg/L	100	RP056-0
Iron, Total	TPTZ	0.02-1.8 mg/L	100	RP055-0

MC500 Tests and Reagents, continued

Parameter	Method	Range	Number of Tests	Part Number
Manganese	Formaldehyde	0.2-4.0 mg/L	100	RS6080
Manganese LR	PAN	0.01-0.7 mg/L	50	RS5090
Manganese HR	Periodate oxidation	0.1-18 mg/L	100	RS6500
Molybdate	Thioglycolate	1-50 mg/L	100	RS3060
Molybdate HR	Mercaptoacetic acid	0.5-66 mg/L	100	RS5300
Nitrate	Chromotropic acid	1-30 mg/L	50	RS5580
Nitrite	N(1-Naphthyl)ethylenediamine	0.01-0.5 mg/L	100	RT231-0
Nitrite LR	Diazotization	0.01-0.3 mg/L	100	RP098-0
Nitrogen, total LR	Persulfate digestion method	0.5-25 mg/L	50	RS5550
Nitrogen, total HR	Persulfate digestion method	5-150 mg/L	50	RS5560
Oxygen, active	DPD	0.1-10 mg/L	100	RT122-0
Oxygen, dissolved	Rhodazine D™	10-800 µg/L	30	L380450
Ozone	DPD/Glycine	0.02-1 mg/L	100	RS5555
Phosphate, ortho LR	Phosphomolybdic blue / Ascorbic acid	0.05-4 mg/L	100	RS3040
Phosphate, ortho HR	Vanado molybdate	5-80 mg/L	100	RS5810
Phosphate, ortho	Ascorbic acid	0.06-2.5 mg/L	100	RP155-0
Phosphate, ortho	Ascorbic acid	0.06-5 mg/L	50	RS5200
Phosphate, acid-hydrolyzable	Acid digestion	0.02-1.6 mg/L	50	RS5250
Phosphate, total	Acid persulfate digestion	0.02-1.1 mg/L	50	RS5210
Phosphate 1, ortho	Vanado molybdate	5-40 mg/L	30	L380460
Phosphate 2, ortho	Stannous chloride	0.05-5 mg/L	30	L380480
pH-Value	Bromocresol purple	5.2-6.8	100	RT570-0
pH-Value	Phenol red	6.5-8.4	100	RT177-0
pH-Value	Phenol red	6.5-8.4	15 ml	L471040
pH-Value	Thymol blue	8.0-9.6	100	RT571-0
Potassium	Tetraphenylborate (Turbidity)	0.7-12 mg/L	100	RT567-0
Silica	Silicomolybdate	0.05-4 mg/L	100	RS3130
Silica LR	Heteropoly blue	0.1-1.6 mg/L	100	RS5690
Silica HR	Silicomolybdate	1-90 mg/L	100	RS5700
Sulfate	Barium sulfate (Turbidity)	5-100 mg/L	100	RT545-0
Sulfate	Barium sulfate (Turbidity)	5-100 mg/L	100	RP216-0
Sulfide	DPD/Catalyst	0.04-0.5 mg/L	100	RS2930
Sulfite	DTNB	0.1-5 mg/L	100	RT802-0
Urea	Indophenol / Urease	0.1-3 mg/L	100	RS9300
Zinc	Zincon	0.02-1 mg/L	100	RS2620

Specifications subject to change
without notice Rev 1.1.0805

Ordering Information

Part Number	Description
MC500-10	MC500 Multi-Parameter Colorimeter
MC500-60	MC500 Data Transfer Module
L197620	Sample Cell, Round, 24mm with lid, 12 pk
L197665	Sample Cell, Round, 16 mm with lid, 10 pk