

# Lovibond® Water Testing

## Tintometer® Group



### MD 200 Chlorine, Bromine, pH, Cyanuric acid, Acid capacity KS4.3, Calcium hardness, tablet reagents (OTZ)

Precise results using high-quality interference filters



- Scroll memory
- Automatic switch-off
- Real-Time-Clock and date
- Calibration mode indicator

Part Number: 2861912

#### Versatile use

The MD 200 photometer can be used in almost all areas of water analysis.

#### Precise and low maintenance

The high-precision optics, which in addition to long-term stable LEDs as light sources, also offer high-quality interference filters, ensure precise and reproducible measurement results. In addition, these components make the photometer low-maintenance.

#### User friendly

The devices impress with their ease of use, ergonomic design and compact dimensions, which makes handling the devices easy and safe.

#### Reagents

Use long-term stable Lovibond® reagent tablets (5-10 years guaranteed minimum durability) or Lovibond® liquid reagents.

#### Industry

Marine Industry | Municipalities | Pool Domestic | Pool Public | Pool Services

#### Application

Boiler Water | Cooling Water | Disinfection Control | Drinking Water Treatment | Pool Water Control | Raw Water Treatment | Waste-Water Treatment

#### MD 200 Chlorine, Bromine, pH, Cyanuric acid, Acid capacity KS4.3, Calcium hardness, tablet reagents (OTZ)

Versatile, compact and: The benchtop photometer MD 200 combines high-quality interference filters with long-term stable LEDs as light sources in a high-precision optic. The result: precise measurement results at all times - no matter where you use it.

## Measuring Range

Test Name	Measuring Range	Chemical Method
Bromine T	0.05 - 13 mg/L Br <sub>2</sub>	DPD
Chlorine HR T	0.1 - 10 mg/L Cl <sub>2</sub> <sup>a)</sup>	DPD
Chlorine L	0.02 - 4.0 mg/L Cl <sub>2</sub> <sup>a)</sup>	DPD
Chlorine T	0.01 - 6.0 mg/L Cl <sub>2</sub> <sup>a)</sup>	DPD
CyA T	10 - 160 mg/L CyA	Melamine
Hardness Calcium (B) T	20 - 500 mg/L CaCO <sub>3</sub>	Murexide
K <sub>S4.3</sub> T	0.1 - 4 mmol/L K <sub>S4.3</sub>	Acid / Indicator
pH value L	6.5 - 8.4 pH	Phenol Red
pH-value T	6.5 - 8.4 pH	Phenol Red

## Technical Data

<b>Optics</b>	LEDs, interference filters (IF) and photo sensor in transparent sample chamber. Depending on the version, up to 3 different interference filters are used. Wavelength specifications of interference filters: 430 nm Δλ = 5 nm 530 nm Δλ = 5 nm 560 nm Δλ = 5 nm 610 nm Δλ = 6 nm
<b>Wavelength Accuracy</b>	± 1 nm
<b>Photometric Range</b>	-2500 - 2500 mAbs
<b>Photometric Accuracy</b>	3 % FS (T = 20 °C – 25 °C)
<b>Display</b>	backlit LCD (on keypress)
<b>Interfaces</b>	Infrared
<b>Operation</b>	Foil keypad
<b>Auto – OFF</b>	Yes
<b>Calibration</b>	Factory calibration and user calibration. Reset to factory calibration possible.
<b>Internal Storage</b>	internal ring memory for 16 data sets
<b>Power Supply</b>	4 batteries (AA)
<b>Battery Life Time</b>	approx. 53 hours
<b>Clock</b>	Real Time Clock and Date
<b>Portability</b>	Portable
<b>Environmental Conditions</b>	temperature: 5 - 40 °C rel. humidity: 30 - 90 % (non condensing)
<b>Protection Class</b>	IP 68
<b>Compliance</b>	CE
<b>Dimensions</b>	110 x 55 x 190 mm
<b>Weight</b>	455 g

## Delivery Scope

- Instrument in plastic case with 4 batteries (AA)
- 3 Round vials with lids
- Sealing rings
- 1 Stirring rod
- 1 Brush
- 1 Syringe (5 ml)
- 100 tablet reagents DPD No. 1
- 100 tablet reagents DPD No. 3 Evo
- 100 tablet reagents Phenol Red Photometer
- 100 tablet reagents CyA-Test
- 100 tablet reagents Alka-M Photometer
- 100 tablet reagents Calcio-H No. 1
- 100 tablet reagents Calcio-H No. 2
- Instruction manual
- Manual of Methods
- Certificate (COC)
- Warranty information

Title	Part Number
Water sampler with bottle 250 mL and lid, AF 631	170500
Batteries (AA), set of 4	1950025
Round cuvette 24 mm ø, set of 12	197620
Sealing ring for round vials 24 mm ø, set of 12	197626
Round cuvette 24 mm ø, set of 5	197629
Cleaning cloth	197635
Round cuvette 16 mm ø, set of 10	197665
Adapter for round cuvettes 16 mm ø	19802190
Battery lid	19802241
Fixed price service package for MD100/MD110/MD200	19802701
Service plan - 3 years for MD100/MD110/MD200	19802801
Verification Standard Kit MD 100 / 200	215670
Reference Standard Kit Chlorine - 0.2 and 1.0 mg/l (MD 100/110/200)	275650
Reference Standard Kit Chlorine - 0.5 and 2.0 mg/l (MD 100/110/200)	275655
Reference Standard Kit Chlorine - 1.0 and 4.0 mg/l (MD 100/110/200)	275656
Reference Standard Kit pH - 7.45 (MD 100/110/200)	275670
Stirring rod, 13 cm length	364100
Stirring rod, 10 cm length	364109
Stirring rod, 13 cm length, set of 10	364120
Stirring rod, 10 cm length, set of 10	364130
Membrane filter set for use when preparing samples, 25 membrane filters 0.45 µm, 2 syringes 20 ml	366150
250 mL bottle, AF 631	375072
Brush, 11 cm length	380230
Measuring beaker, 100 ml	384801
Cuvette stand for 6 round cuvettes Ø 24 mm	418951
Cuvette stand for 10 round cuvettes Ø 16 mm	418957
ValidCheck Chlorine 1,5 mg/l	48105510
Factory calibration certificate ISO 9001 for MD100/MD110/MD200	999750
Additionally for each method	999855

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