

# Lovibond® Water Testing Tintometer® Group



## MD 100 Cooling Water

Precise Water Analysis in High-Quality Design



The MD 100 has several key features that make it a favorite among users.

### Waterproof Design

The IP 68 design of this instrument ensures that the MD 100 remains water tight for up to 1 hour at 0.1 meter. Don't worry about dropping the instrument into a body of water - it floats!

### Accurate, Reproducible Results

The optical system of the MD 100 utilizes LEDs and interference filters which quickly gives you results that you can be confident in.

### User Calibration Mode

A one-point calibration is possible. Additionally, all MD 100 instruments have the ability to display readings directly in ABS or %T units.

### One-time-Zero Function

Don't waste time waiting for your instrument to Zero after each test. When testing a new sample, zero the instrument once and all subsequent tests of that sample do not require you to re-zero the instrument.

### Automatic Data Storage with Transfer Capabilities

The MD 100 automatically stores the last 16 readings with time and date stamp. These results can be transferred to a spreadsheet using the IRiM accessory.

- Lightweight, rugged design for use in the field
- Single unit construction with no parts to lose or break
- Large, easy to read display
- Industry specific parameter combinations available

Part Number: 276240

### Ergonomic Design

Whether you're using the MD 100 out in the field or in the lab, the design of the instrument makes it easy to handle and view the display. If you're using the instrument in the lab, the rubber feet on the bottom of the housing eliminates the need for two hand operation or to chase your instrument around the workbench.

### Factory Programmed

All MD 100 instruments are supplied ready to use with up to 14 calibration curves. All you need to do is select the test you need, prepare your sample and test!

### Scroll Driven Menu System

The simple interface allows you to quickly reach the test you need. When the instrument is turned on, it will automatically display the last test used.

### 2-Year Warranty

## Industry

Chemical Industry | Food and Beverage Industry | Industries Others | Marine Industry | Oil and Gas | Pharmaceutical Industry | Power and Energy

## Application

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

## MD 100 Cooling Water

Scale, corrosion, deposits and damage due to micro-organisms (biofilms) are just some of the factors which can seriously impair cooling water systems. Proper management of the water in a cooling system will usually result in a considerable improvement in water quality and thus drastically reduced operating costs and long-term prevention of downtimes.

The Colorimeter MD 100 Cooling Water is just the right system for this purpose. It tests your water parameters quickly, easily and precisely.

## Measuring Range

Test Name	Measuring Range	Chemical Method
Aluminium PP	0.01 - 0.25 mg/l Al	Eriochrom Cyanine R
Bromine T	0.05 - 13 mg/l Br <sub>2</sub>	DPD
Chlorine dioxide T	0.02 - 11 mg/l ClO <sub>2</sub>	DPD / Glycine
Chlorine HR (KI) T (105)	5 - 200 mg/l Cl <sub>2</sub>	KI / Acid
Chlorine T	0.01 - 6.0 mg/l Cl <sub>2</sub> <sup>a)</sup>	DPD
Copper T	0.05 - 5 mg/l Cu <sup>a)</sup>	Biquinoline
Iron in Mo PP (224)	0.01 - 1.8 mg/l Fe	TPTZ
Iron LR L (A)	0.03 - 2 mg/l Fe	Ferrozine / Thioglycolate
Molybdate HR L	1 - 100 mg/l MoO <sub>4</sub>	Thioglycolate
Molybdate LR PP	0.03 - 3 mg/l MoO <sub>4</sub>	Mercaptoacetic Acid
Ozone T	0.02 - 2 mg/l O <sub>3</sub>	DPD / Glycine
Polyacrylate L	1 - 30 mg/l Polyacryl	Turbidity
Sulphate PP	5 - 100 mg/l SO <sub>4</sub> <sup>2-</sup>	Bariumsulphate Turbidity
Triazole PP	1 - 16 mg/l Benzotriazole or Tolyltriazole	Catalyzed UV Digestion
Zinc L	0.1 - 2.5 mg/l Zn	Zincon / EDTA

## Technical Data

<b>Light Source</b>	LED
<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 $\Delta\lambda = 5$ nm 530 nm $\Delta\lambda = 5$ nm 560 nm $\Delta\lambda = 5$ nm 580 nm $\Delta\lambda = 5$ nm 610 nm $\Delta\lambda = 6$ nm 660 nm $\Delta\lambda = 5$ nm
<b>Wavelength Accuracy</b>	$\pm 1$
<b>Photometric Accuracy</b>	3 % FS (T = 20 °C – 25 °C)
<b>Operation</b>	Foil keypad
<b>Display</b>	backlit LCD (on keypress)
<b>Suitable Vials</b>	Round Cuvettes 24 mm
<b>Calibration</b>	factory calibration and user calibration. Reset to factory calibration possible
<b>Interfaces</b>	Infrared
<b>Internal Storage</b>	internal ring memory for 16 data sets
<b>Power Supply</b>	4 micro batteries (AAA)
<b>Battery Life Time</b>	approx. 17 hours
<b>Auto – OFF</b>	Yes

<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>Compliance</b>	CE
<b>Protection Class</b>	IP 68
<b>Dimensions</b>	155 x 75 x 35 mm
<b>Weight</b>	260 g

## Delivery Scope Text

- Instrument in plastic case
- Adapter for  $\varnothing$  16 mm cuvettes
- 4 micro batteries (AAA)
- 3 round cuvettes (glass) with lid
- 3 round cuvettes  $\varnothing$  16 mm (glass) with lid
- Sealing rings
- Stirring rod
- Brush
- Syringe (20 ml)
- Measuring Beaker (100 ml)
- Instruction manual
- Quick Start Guide
- Certificate (COC)
- Warranty information

## Accessory

Title	Part Number
Water sampler, AF 631	170500
Micro batteries (AAA), set of 4	1950026
Multy cuvette-2, set of 12	197600
Round cuvette 24 mm, set of 12	197620
Sealing ring for round vials 24 mm, set of 12	197626
Round cuvette 24 mm, set of 5	197629
Cleaning cloth	197635
Round cuvette 16 mm, set of 10	197665
Adapter for round cuvettes 16 mm	19802190
Mixing cylinder, 25 ml	19802650
Infrared data transmission modul IRiM	214050
Verification Standard Kit MD 100 / 200	215670
Reference Standard Kit Chlorine - 0.2 and 1.0	275650
Reference Standard Kit Chlorine - 0.5 and 2.0	275655
Reference Standard Kit Chlorine - 1.0 and 4.0	275656
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 $\mu$ m, 2 syringes 20 ml	366150
Lid, AF 631	375068
500 ml bottle, AF 631	375069
Brush, 11 cm length	380230
Measuring beaker, 100 ml	384801
UV Pen Lamp, 254 nm	400740
Cuvette stand for 6 round cuvettes $\varnothing$ 24 mm	418951

Title	Part Number
Cuvette stand for 10 round cuvettes Ø 16 mm	418957
Plastic funnel with handle (white)	471007
Basic price for calibration certificate for each unit	999845
Additionally for each method	999855

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