

# Lovibond® Water Testing Tintometer® Group



## MD 100 Manganese LR, tablet reagents

Precise water control with proven and compact measuring system



- High-precision optics
- High accuracy and reproducibility through precision interference filter (5 nm)
- Industry specific parameter combinations available

Part Number: 276100

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. You always measure in the spectral peak.

### 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.

### 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 | Municipalities | NGO | Oil and Gas | Pharmaceutical Industry

## Application

Drinking Water Treatment | Galvanization | Raw Water Treatment

## MD 100 Manganese LR, tablet reagents

The MD 100 is a single parameter colorimeter for water quality analysis. The rugged design makes this instrument completely portable and ideal for field use.

This instrument is pre-programmed with three testing ranges and methods for Manganese, making it ideal for a variety of applications and industries. Choose between using Lovibond® Tablet reagents or VARIO Powder Pack Reagents, depending on the range selected.

## Measuring Range

| Test Name       | Measuring Range    | Chemical Method     |
|-----------------|--------------------|---------------------|
| Manganese HR PP | 0.1 - 18 mg/L Mn   | Periodate Oxidation |
| Manganese LR PP | 0.01 - 0.7 mg/L Mn | PAN                 |
| Manganese T     | 0.2 - 4 mg/L Mn    | Formaldehyde        |

## 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.<br>Wavelength specifications of interference filters:<br>430 nm $\Delta\lambda = 5$ nm<br>530 nm $\Delta\lambda = 5$ nm<br>560 nm $\Delta\lambda = 5$ nm<br>580 nm $\Delta\lambda = 5$ nm<br>610 nm $\Delta\lambda = 6$ nm<br>660 nm $\Delta\lambda = 5$ nm |
| <b>Wavelength Accuracy</b>      | $\pm 1$  |
| <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 micro batteries (AAA)  |
| <b>Battery Life Time</b>        | approx. 17 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>               | 155 x 75 x 35 mm   |
| <b>Weight</b>                   | 260 g  |

## Delivery Scope

- Instrument in plastic case
- 100 tablet reagents Manganese LR 1
- 100 tablet reagents Manganese LR 2
- 4 micro batteries (AAA)
- 3 round cuvettes (glass) with lid
- Sealing rings
- Stirring rod
- Brush
- Instruction manual
- Quick Start Guide
- Certificate (COC)
- Warranty information

| Title  | Part Number |
|--|-------------|
| Water sampler with bottle 250 mL and lid, AF 631   | 170500      |
| Micro batteries (AAA), set of 4  | 1950026     |
| Multy cuvette-2, set of 12   | 197600      |
| Round cuvette 24 mm $\varnothing$ , set of 12  | 197620      |
| Sealing ring for round vials 24 mm $\varnothing$ , set of 12   | 197626      |
| Round cuvette 24 mm $\varnothing$ , set of 5   | 197629      |
| Cleaning cloth   | 197635      |
| Round cuvette 16 mm $\varnothing$ , set of 10  | 197665      |
| Adapter for round cuvettes 16 mm $\varnothing$   | 19802190    |
| Mixing cylinder, 25 ml   | 19802650    |
| 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      |
| 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      |
| 250 mL bottle, AF 631  | 375072      |
| Brush, 11 cm length  | 380230      |
| Measuring beaker, 100 ml   | 384801      |
| Cuvette stand for 6 round cuvettes $\varnothing$ 24 mm   | 418951      |
| Cuvette stand for 10 round cuvettes $\varnothing$ 16 mm  | 418957      |
| Plastic funnel with handle (white)   | 471007      |
| Factory calibration certificate ISO 9001 for MD100/MD110/MD200   | 999750      |
| Additionally for each method   | 999855      |

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