

# Lovibond® Water Testing Tintometer® Group



## MD 110 COD

Photometer with **Bluetooth®** Technology



The MD 110 has several key features that make it a favorite among users.

### Waterproof Design

The IP 68 design of this instrument ensures that the MD 110 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 110 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 110 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 110 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 110 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

- Bluetooth® -Interface
- Scroll Memory
- Automatic switch-off
- Calibration mode indicator

Part Number: 2961202

of the housing eliminates the need for two hand operation or to chase your instrument around the workbench.

### Factory Programmed

All MD 110 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 | Municipalities | NGO | Oil and Gas | Pharmaceutical Industry | Power and Energy

## Application

Raw Water Treatment | Waste Water Treatment

## MD 110 COD

### Bluetooth® function

All MD 110 photometers have a **Bluetooth®** function. To make the most of it, Tintometer offers an app for mobile devices as well as a PC software with dongle. The measurement results are transmitted to external devices via the **Bluetooth®** interface for quick evaluation and processing so that all data can be evaluated and assigned directly on site.

### App AquaLX®

The free app AquaLX® is ideally designed for use in on-site measurements. Compatible with IOS®- and Android®-based smartphones and tablets, it enables uncomplicated data transmission. It maps all measured values as an illustrative graphic with minimum and maximum limits and supports the export of the data as an Excel®-compatible CSV file.

### PC Software

The PC software makes it possible to import data directly from the photometer to the Windows-based PC. As a stationary solution, it facilitates the transfer of data through a quickly established, permanently wireless connection. Further processing of the results can be done both in the software itself and by exporting the data to Excel or as a CSV file.

The set of software and **Bluetooth®** dongle is available as a separate accessory under item no. 2444480 available.

### Note according to EU regulation 2019/1148

Acquisition, introduction, possession or use of this product by the general public is restricted by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point. See [https://ec.europa.eu/info/index\\_en](https://ec.europa.eu/info/index_en)

## Measuring Range

Test Name	Measuring Range	Chemical Method
COD HR TT	200 - 15000 mg/L COD <sup>20</sup>	Dichromate / H <sub>2</sub> SO <sub>4</sub>
COD LMR TT	15 - 300 mg/L COD <sup>20</sup>	Dichromate / H <sub>2</sub> SO <sub>4</sub>
COD LR TT	3 - 150 mg/L COD <sup>20</sup>	Dichromate / H <sub>2</sub> SO <sub>4</sub>
COD MR TT	20 - 1500 mg/L COD <sup>20</sup>	Dichromate / H <sub>2</sub> SO <sub>4</sub>

## Technical Data

**Optics** 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>	± 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>	Bluetooth
<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 125 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>Degree of Pollution</b>	2
<b>Maximum altitude above sea level</b>	2000 m
<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
- Adapter for ø 16 mm cuvettes
- 4 micro batteries (AAA)
- Syringe (1 ml)
- Syringe (2 ml)
- 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 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
Mixing cylinder, 25 ml	19802650

Title	Part Number
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
Thermoreactor RD 125	2418940
Kit of BT data transfer software and Bluetooth Dongle	2444480
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
Pipette Tips	365032
Pipette, 200 µl	365042
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
Plastic funnel with handle (white)	471007
Factory calibration certificate ISO 9001 for MD100/MD110/MD200	999750
Additionally for each method	999855

#### Tintometer GmbH

Lovibond® Water Testing  
Schleefstraße 8-12  
44287 Dortmund  
Tel.: +49 (0)231/94510-0  
sales@lovibond.com  
www.lovibond.com  
Germany

#### The Tintometer Limited

Lovibond House  
Sun Rise Way  
Amesbury, SP4 7GR  
Tel.: +44 (0)1980 664800  
sales@lovibond.uk  
www.lovibond.com  
UK

#### Tintometer China

9F, SOHO II C.  
No.9 Guanghualu,  
Chaoyang District,  
Beijing, 100020  
Customer Care China Tel.: 4009021628  
Tel.: +86 10 85251111 Ext. 330  
Fax: +86 10 85251001  
chinaoffice@tintometer.com  
www.lovibond.com  
China

#### Tintometer South East Asia

Unit B-3-12, BBT One Boulevard,  
Lebu Nilam 2, Bandar Bukit Tinggi,  
Klang, 41200, Selangor D.E  
Tel.: +60 (0)3 3325 2285/6  
Fax: +60 (0)3 3325 2287  
lovibond.asia@tintometer.com  
www.lovibond.com  
Malaysia

#### Tintometer Brazil

Caixa Postal: 271  
CEP: 13201-970  
Jundiaí – SP  
Tel.: +55 (11) 3230-6410  
sales@lovibond.us  
www.lovibond.com.br  
Brazil

#### Tintometer Inc.

6456 Parkland Drive  
Sarasota, FL 34243  
Tel: 941.756.6410  
Fax: 941.727.9654  
sales@lovibond.us  
www.lovibond.us  
USA

#### Tintometer India Pvt. Ltd.

Door No: 7-2-C-14, 2<sup>nd</sup>, 3<sup>rd</sup> & 4<sup>th</sup> Floor  
Sanathnagar Industrial Estate,  
Hyderabad, 500018  
Telangana  
Tel: +91 (0) 40 23883300  
Toll Free: 1 800 599 3891/ 3892  
indiaoffice@lovibond.in  
www.lovibondwater.in  
India

#### Tintometer Spain

Postbox: 24047  
08080 Barcelona  
Tel.: +34 661 606 770  
sales@tintometer.es  
www.lovibond.com  
Spain

Technical changes without notice

Printed in Germany

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