

Lovibond® Water Testing

Tintometer® Group



MD 110 Chlorine, Bromine, pH, Cyanuric acid, Alkalinity-m, Calcium hardness, tablet reagents

Photometer with **Bluetooth®** Technology



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

Part Number: 2980902

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 IRI-M 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 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 Manufacturer's Warranty

Industry

Marine Industry | Municipalities | Pool Public | Pool Services

Application

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

MD 110 Chlorine, Bromine, pH, Cyanuric acid,
Alkalinity-m, Calcium hardness, tablet reagents
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.
The PC software makes it possible to import data directly from the photometer to the Windows-based PC using the included **Bluetooth®** dongle. 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.

Measuring Range

Test Name	Measuring Range	Chemical Method
Alkalinity-m T	5 - 200 mg/L CaCO ₃	Acid / Indicator
Bromine T	0.05 - 13 mg/L Br ₂	DPD
Chlorine HR T	0.1 - 10 mg/L Cl ₂ ^{a)}	DPD
Chlorine L	0.02 - 4.0 mg/L Cl ₂ ^{a)}	DPD
Chlorine T	0.01 - 6.0 mg/L Cl ₂ ^{a)}	DPD
CyA T	10 - 160 mg/L CyA	Melamine
Hardness Calcium (B) T	20 - 500 mg/L CaCO ₃	Murexide
pH value L	6.5 - 8.4 pH	Phenol Red
pH-value T	6.5 - 8.4 pH	Phenol Red

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 Δλ = 5 nm 530 nm Δλ = 5 nm 560 nm Δλ = 5 nm 580 nm Δλ = 5 nm 610 nm Δλ = 6 nm 660 nm Δλ = 5 nm
Wavelength Accuracy	± 1
Photometric Range	-2500 - 2500 mAbs
Display	backlit LCD (on keypress)
Interfaces	Bluetooth
Operation	Foil keypad
Calibration	factory calibration and user calibration. Reset to factory calibration possible
Internal Storage	internal ring memory for 125 data sets
Power Supply	4 micro batteries (AAA)
Battery Life Time	approx. 17 hours
Clock	Real Time Clock and Date
Portability	Portable
Degree of Pollution	2
Maximum altitude above sea level	2000 m
Compliance	CE
Dimensions	6.1 x 2.95 x 1.38"

Delivery Scope

- Instrument in plastic case with 4 micro batteries (AAA)
- 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
- 3 Round vials (glass) with lid and sealing rings
- 1 Stirring rod
- 1 Brush
- 1 Syringe (5 ml)
- Instruction manual
- Manual of Methods
- Certificate (COC)
- Warranty information

Accessories

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
Verification Standard Kit MD 100 / 200	215670
Kit of BT data transfer software and Bluetooth Dongle	2444480
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	375069
Brush, 11 cm length	380230
Measuring beaker, 100ml	384801
Cuvette stand for 6 round cuvettes Ø 24 mm	418951

Title	Part Number
Cuvette stand for 10 round cuvettes Ø 16 mm	418957
Plastic funnel with handle (white)	471007
ValidCheck Chlorine 1,5 mg/l	48105510
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
Fax: +44 (0)1980 625412
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,
Lebuh 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, 2nd, 3rd & 4th 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

Lovibond® and Tintometer® are Trademarks of the Tintometer Group of Companies