

# Lovibond® Water Testing Tintometer® Group



## MD50 Molybdenum, tablet reagents

Precise water control with proven and compact measuring system



- High-precision optics to ensure accuracy and reproducibility
- Wired and wireless data transfer option
- Multiple single parameter variants for diverse applications

Part Number: 280191

The MD50 has several key features that make it a favorite among users.

### **Robust Design**

The MD50 is built to last. Its rugged industrial design, complete with rubber-protected sides and an IP67 rating, ensures unmatched durability and reliability even in demanding environments.

### **Accurate, Reproducible Results**

The innovative optical system of the MD50 delivers exceptional accuracy and speed, ensuring precise readings in record time.

### **Factory Programmed Methods**

All MD50 instruments come with pre-programmed methods for different types of reagents. Simply select the test you need, prepare your sample, and test! To simplify test selection, you can choose the reagent type from the settings and display only your desired methods in the methods list.

### **User Calibration and User defined Method**

A one-point calibration is possible with the MD50. The instrument automatically saves the calibration protocol in the logs along with the calibration factor. All user-calibrated methods are displayed with a calibration icon on the screen. Can't find the method you need? The MD50 also allows you to program a user-defined method using PC software.

### **One-Time-Zero Function**

Save time by zeroing the instrument once for each sample. When testing a new sample, zero the instrument once and all subsequent tests of that sample do not require re-zeroing. You can also activate or deactivate the OTZ function for all methods in the settings.

### **Automatic Data Storage**

The MD50 automatically stores the last 100 readings and protocols with a time and date stamp. Results remain in storage even during a battery exchange.

### **Data Transfer**

The MD50 offers smooth and effortless data transfer. You can transfer data to the AquaLX® app via NFC or use a USB cable to transfer

data to PC software. Data can also be exported in CSV format for programs like Excel.

### **Ergonomic Design**

Whether you're using the MD50 in the field or in the lab, its design makes it easy to handle and view the display. In the field, the compact size and side protections ensure a firm grip during use. In the lab, rubber feet on the bottom of the housing eliminate the need for two-handed operation or chasing your instrument around the workbench.

### **GLP Compliance**

To ensure data quality and integrity, the MD50 creates and saves a protocol for each change made during operation.

### **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

Boiler Water | Cooling Water

## MD50 Molybdenum, tablet reagents

The MD50 series offers a comprehensive range of single parameter photometers that meet the most diverse needs of water treatment. With its language-free user interface based on icons and animations, it offers unparalleled ease of use. The robust design of the MD50 ensures that the instrument can withstand the toughest conditions in the field.

## Measuring Range

Test Name	Measuring Range	Chemical Method
Molybdate HR PP	1.6 - 40 mg/L Mo	Mercaptoacetic Acid
Molybdate LR PP	0.05 - 3 mg/L Mo	Ternary Complex
Molybdate T	1.5 - 30 mg/L Mo	Thioglycolate

## Technical Data

<b>Optics</b>	LED, spectrometer sensor, interference filter (selected variants only)
<b>Light Source</b>	LED
<b>Wavelength</b>	Variant specific (415, 445, 480, 515, 530, 555, 590, 630, 680)
<b>Photometric Range</b>	0 - 3 Abs
<b>Suitable Vials</b>	Round Cuvettes 13 mm Round Cuvettes 16 mm Round Cuvettes 24 mm
<b>Display</b>	Backlit LCD
<b>Interfaces</b>	USB-C NFC (Near Field Communication)
<b>Data Transfer Format</b>	.csv
<b>Operation</b>	Foil keypad
<b>Auto – OFF</b>	Yes
<b>Programmability</b>	yes with PC software
<b>Calibration</b>	Factory and user adjustment - return to factory adjustment possible at any time
<b>Updates</b>	Firmware and methods update
<b>Internal Storage</b>	Internal ring memory for 100 data records
<b>Battery Life Time</b>	approx. 5000 measurements (without backlight)
<b>Portability</b>	Portable
<b>Degree of Pollution</b>	2
<b>Maximum altitude above sea level</b>	3500 m
<b>Environmental Conditions</b>	5 - 50 °C at a relative humidity of 30 - 95 % (non-condensing)
<b>Protection Class</b>	IP 67
<b>Compliance</b>	CE
<b>Languages Full User Manual</b>	English, German, Spanish, French, Portuguese, Italian, Dutch, Turkish, Russian, Chinese
<b>Dimensions</b>	155 x 76 x 45 mm
<b>Weight</b>	247 g

## Delivery Scope

- 1 Instrument in Carrying case
- 100 tablet reagents Molybdate HR No.1
- 100 tablet reagents Molybdate HR No.2
- 2 batteries (AA)
- 3 round cuvettes (glass) with lid and Sealing rings
- 1 Screwdriver
- 3 Stirring rods
- 1 Syringe 10 mL
- 1 Cleaning brush
- 1 USB-C to USB-A cable
- 1 Instruction manual
- 1 Certificate (COC)
- 1 Warranty information

Title	Part Number
Water sampler with bottle 250 mL and lid, AF 631	170500
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
Mixing cylinder, 25 ml	19802650
Fixed price service package for MD50	19802710
Service plan - 3 years for MD50	19802810
USB-C cable 1 m, USB-C to A	19820-081
Verification Standard Kit MD50/MD150	215700
Reference Standard Kit Chlorine - 0.2 and 1.0 mg/l (MD50)	275620
Reference Standard Kit Chlorine - 0.5 and 2.0 mg/l (MD50)	275621
Reference Standard Kit Chlorine - 1.0 and 4.0 mg/l (MD50)	275622
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
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
Plastic funnel with handle (white)	471007
Factory Calibration certificate ISO 9001 for method CI M100 (MD50)	999720
Factory Calibration certificate ISO 9001 for method CI M110 (MD50)	999721
Factory Calibration certificate ISO 9001 for MD50	999756

---

**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