Lovibond® Water Testing

Tintometer® Group

MD50 Molybdenum, powder 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: 280195

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 equipped with a wide range of pre-programmed methods. Simply select the desired test, prepare your sample and start the measurement.

To maximise efficiency in your daily work, frequently used methods can be saved as favourites. This gives you quick access to the most important tests at any time and makes selecting a method much easier.

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, powder reagents

The MD50 series combines precise single-parameter photometry with maximum user-friendliness, designed to meet the daily challenges of water analysis.
Thanks to the intuitive, language-independent user interface with clear symbols and helpful animations, the instrument can be operated quickly and confidently, regardless of language barriers. The integrated favourites function ensures efficient workflows by making frequently used methods directly available at all times.
Robustly built for demanding outdoor use, the MD50 series delivers reliable performance even under the toughest conditions.

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

Optics	LED, spectrometer sensor, interference filter (selected variants only)
Light Source	LED
Wavelength	Variant specific (415, 445, 480, 515, 530, 555, 590, 630, 680)
Photometric Range	0 - 3 Abs
Photometric Accuracy	3 % FS (T = 20 °C – 25 °C)
Suitable Vials	Round Cuvettes 13 mm Round Cuvettes 16 mm Round Cuvettes 24 mm
Display	Backlit LCD
Interfaces	USB-C NFC (Near Field Communication)
Data Transfer Format	.csv
Operation	Foil keypad
Auto – OFF	Yes
Programmability	yes with PC software
Calibration	Factory and user adjustment - return to factory adjustment possible at any time
Updates	Firmware and methods update
Internal Storage	Internal ring memory for 100 data records
Power Supply	2 x AA batteries Alkaline Batteries (LR6) 3V DC / 55mA
Battery Life Time	approx. 5000 measurements (without backlight)
Portability	Portable
Degree of Pollution	2
Maximum altitude above sea level	3500 m
Environmental Conditions	5 - 50 °C at a relative humidity of 30 - 95 % (non-condensing)
IP Rating	IP 67
Compliance	CE
Languages Full User Manual	English, German, Spanish, French, Portuguese, Italian, Dutch, Turkish, Chinese
Dimensions	155 x 76 x 45 mm
Weight	247 g

Delivery Scope

- 1 Instrument in Carrying case
- 100 VARIO Molybdenum HR 1 Powder Packs
- 100 VARIO Molybdenum HR 2 Powder Packs
- 100 VARIO Molybdenum HR 3 Powder Packs
- 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 & 250 mL Bottle	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 with stopper, 25 mL	19802650
Fixed price service packages for MD50/MD150	19802709
3 years service plan for MD50/MD150	19802809
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
Box with 10 plastic stirring rods	364120
Box with 10 plastic stirring rods	364130
250 mL bottle with cap	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 Cl M100 (MD50)	999720
Factory Calibration certificate ISO 9001 for method Cl M110 (MD50)	999721
Factory Calibration certificate ISO 9001 for MD50	999756

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