Photometer MD 100, MD 110 & MD 200

Measurements using high quality interference filters with long-life LEDs as a light source in a transparent sample chamber.

The units provide accurate, reproducible results very quickly. Other major advantages include ease of operation, ergonomic design, compact dimensions and safe handling.

Using an internal ring memory, the last 16 data sets (MD 100, MD 200) and 125 data sets (MD 110) are stored automatically with date, time, parameter and measurement value.

The tests are conducted using either Lovibond® tablet reagents with long-term stability, VARIO powder reagents or liquid reagents.

Bluetooth® is a wireless technology subject to regional approval. The use of the MD 110 with **Bluetooth®** is currently only permitted within Europe, the USA, Japan and in Canada. The use of the MD 110 will also be possible in other regions in the future. For current regions and further information, visit: **bluetooth.lovibond.com** Regions in which the MD 110 with **Bluetooth®** can currently be used (status: 01/2019): within Europe (according R&TTE Directive 1999/5/EC) ; USA (according to FCC part 15, comprised in FCC ID QOQBT113) ; Canada (comprised in IC 5123A-BGTBLE113), Japan (includes CAB ID 007-AB0103)

* analog IP 68 1 hour at 0,1 m

Scroll Memory (SM)

To avoid unnecessary scrolling for the required test method, the instrument memorizes the last method used before switching off the instrument. When the instrument is switched on again, the scroll list comes up with the last used test method first.

Zero Setting (OTZ)

For certain versions of the instrument it is not necessary to zero the instrument each time.
The zero setting is held in memory until the instrument is turned off. (**O**ne **T**ime **Z**ero - OTZ).
The zero setting can be confirmed whenever it is required.

Manufacturers Test Certificate M

Besides the "Certificate of Compliance" the manufacturers test certificates M is available at cost on request. Manufacturers test certificates M are individually supplied per instrument and per method.

The manufacturers test certificate M has to be ordered together with the new instrument and cannot be delivered at a later stage.

N.I.S.T Traceability

The instrument is factory pre-adjusted to international standards. The user can set the instrument in "user calibration mode" with standards traceable to N.I.S.T. adjust.
(N.I.S.T. = National Institute of Standards and Technology)

Data Transfer

The optional available IRiM (infrared interface module) uses modern infrared technology to transmit measurement data from the **MD 100** and **MD 200** photometer to one of 3 optional interfaces.
These interfaces can be used to connect to a PC, a USB printer[1)] or alternatively a serial printer[2)].

The unit is supplied complete with data logging software providing easy and rapid transfer of data to the PC. As an option, the data can be saved as an Excel sheet or a .txt file.

Measurement data can quickly be printed out, using a specified[1)] USB or alternatively a printer with a serial plug-in connected to the IRiM.

The **MD 110** photometers have a **Bluetooth®** feature.

Via the **Bluetooth®** interface, the measurement results are transmitted to external instruments for prompt assessment and processing, so that all data can be evaluated and collated directly on site. In order to get the best use out of this, Tintometer offers an app for mobile instruments and PC software with a dongle.

The free app **AquaLX®** is ideally designed for use in on-site measurements. Compatible with iOS®- and Android® TM-based smartphones and Tablets, it enables fuss-free data transfer. It maps all measured values as descriptive graphs with minimum and maximum limits and supports export of the data as an Excel®-compatible CSV file.

With the aid of the complimentary **Bluetooth®** dongle, 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 fast established, permanent wireless connection. Further processing of the results can be processed 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 offered as separate accessories under item no.:

Code **2444480**

For more information please see:
www. bluetooth.lovibond.com

GET IT ON Google Play

Download on the App Store

Verification Standard Kit

The verification standards serve to verify the photometric accuracy and reproducibility of the results at the different wavelengths. The absorbance value is stated.
The kit contains one zero standard, six different vials for checking six different wave lengths and allows checking the complete range of MD 100 photometers.
The shelf life of the verification standard kit is two years from the date of production, provided that storage and use are in accordance with the instructions provided.
Measurements are taken in mAbs.

Verification Standard Kit 21 56 70
(MD 100, MD 110 & MD 200)

Reference Standard Kit for MD 100, MD 110 and MD 200

The reference standards are designed to check the accuracy and the reliability of the results.

It is not possible to calibrate the photometer with the reference standards.

The shelf life of reference standards is two years from the date of production, provided that storage and use are in accordance with the instructions provided.

Kit Chlorine for instruments 27 56 50
with tablet / liquid reagent 0.2* and 1.0* mg/l

Kit Chlorine for instruments 27 56 55
with tablet / liquid reagent 0.5* and 2.0* mg/l

Kit Chlorine for instruments 27 56 56
with tablet / liquid reagent 1.0* and 4.0* mg/l

Kit Chlorine for instruments 27 56 60
with powder reagent 0.2* and 1.0* mg/l

Kit pH for instruments 27 56 70
with tablet / liquid reagent 7.45* pH

* Approximate figure, actual figure specified in Certificate of Analysis

Primary standard chlorine

Ideal for validating the chlorine method.
This standard is easy to handle and will meet the requirements of US EPA 334.0.

ValidCheck Chlorine 1,5 mg/l
Code.: 48 10 55 10

new!

Please see pages 88 onwards for reagents (order codes)

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Single-Parameter MD 100 / MD 110 / MD 200

Single-Parameter

Instrument with Parameter	OTZ*	Range	Method name Handbook / Display	usable reagent form	delivery content incl. reagents	MD 100	MD 110	MD 200
Aluminium		0,01 - 0,3 mg/l Al	M40 /AL Tablet	Tablet	✓	276200	-	-
		0,01 - 0,25 mg/l Al	M50 /AL Powder	Powder	✓	276205	-	-
Ammonia		0,02 - 1,0 mg/l N	M60 /A Tablet	Tablet	✓	276060	-	-
		0,01 - 0,8 mg/l N	M62 /A Powder	Powder	✓	276065	-	-
Chlorine Tablet	✓	0,01 - 6,0 mg/l Cl_2	M100 / CL6	Tablet or	✓	276000	-	-
		0,02 - 4 mg/l Cl_2	M101 / CL6	Liquid	✓	276005	-	-
		0,1 - 10 mg/l Cl_2**	M103 / CL10	Tablet		-	-	-
Chlorine DUO		0,01 - 6,0 mg/l Cl_2	M100 / CL6	Tablet or	✓	276020	-	-
		0,02 - 4 mg/l Cl_2	M101 / CL6	Liquid				
		0,1 - 10 mg/l Cl_2**	M 103 / CL10	Tablet				
		0,02 - 2,0 mg/l Cl_2	M 110 / CL2	Powder	✓	276025	-	-
		0,1 - 8,0 mg/l Cl_2 (10 mm multi vial-2)	M 111 / CL8	Powder	✓			
Chlorine Powder		0,02 - 2,0 mg/l Cl_2	M 110 / Cl2	Powder	✓	276010	-	-
		0,1 - 8,0 mg/l Cl_2 (10 mm multi vial-2)	M 111 / CL8	Powder	✓			
Chlorine HR (KI)		5 - 200 mg/l Cl_2	M105 / CLHr	Tablet	✓	276170	-	-
Chlorine dioxide		0,02 - 11 mg/l ClO_2	M120 / CLO2	Tablet	✓	276030	-	-
		0,04 - 3,8 mg/l ClO_2	M122 / CLO2	Powder	✓	276035		
Chloride		0,5 - 25 mg/l Cl^-	M90 / CL-1	Tablet	✓	276180	-	-
		5 - 250 mg/l Cl^- (by dilution)	M93 / CL-2					
COD		3 - 150 mg/l O_2	M130 / Lr	Tubes	without reagents	276120	2961202	2892502
		15 - 300 mg/l O_2	M133 / MLr					
		20 - 1500 mg/l O_2	M131 / Mr					
		200 - 15000 mg/l O_2	M132 / Hr					
Iron		0,02 - 1,0 mg/l Fe	M220 / FE	Tablet	✓	276050	-	-
		0,02 - 1,8 mg/l Fe TPTZ	M223 / FE2	Powder	✓	276055	-	-
		0,02 - 3,0 mg/l Fe	M222 / FE1	Powder	✓	276056	-	-
Fluoride		0,05 - 2,0 mg/l F-	M170 / F	Liquid	without reagents	276090	-	-
Hardness total		2 - 50 mg/l $CaCO_3$	M200 / tH1	Tablet	✓	276190	-	-
		20 - 500 mg/l $CaCO_3$ (by dilution)	M201 / tH2					
Urea		0,1 - 2,5 mg/l Urea	M390 / Ur1	Tablet and Liquid	✓	276210	-	-
		0,2 - 5 mg/l Urea (by dilution)	M391 / Ur2					
Hazen		10 - 500 mg/l Pt-Co	M 204 / PtCo	without	without reagents	276160	-	-
Copper		0,05 - 5,0 mg/l Cu	M150 / Cu	Tablet	✓	276080	-	-
		0,05 - 5,0 mg/l Cu	M153 / Cu	Powder	✓	276085	-	-
Manganese		0,2 - 4,0 mg/l Mn	M240 / Mn	Tablet	✓	276100	-	-
		0,01 - 0,7 mg/l Mn	M242 / Mn1	Powder	✓	276105	-	-
		0,1 - 18 mg/l Mn	M243 / Mn2	Powder	✓	276106	-	-
Molybdenum		0,03 - 3,0 mg/l Mo	M251 / Mo1	Powder	✓ mixing cylinder (not included)	276140 19802650	-	-
		0,3 - 40 mg/l Mo	M252 / MO2	Tablet	✓	276141	-	-
		0,6 - 30 mg/l Mo	M250 / Mo3	Tablet	✓	276142	-	-
Ozone (DPD)		0,02 - 2,0 mg/l O_3	M300 / O3	Tablet	✓	-	-	2899802

Green Chemistry

* OTZ (zero adjustment applies to all methods of the measuring instrument)

** Delivery without reagents

Please see pages 88 onwards for reagents (order codes)

Single-Parameter MD 100 / MD 110 / MD 200

Single-Parameter

Instrument with Parameter	OTZ*	Range	Method name Handbook / Display	usable reagent form	delivery content incl. reagents	MD 100	MD 110	MD 200
Phosphate		0,05 - 4,0 mg/l PO_4	M320 / PO4	Tablet	✓	276040	-	-
		0,06 - 2,5 mg/l PO_4	M323 / PO4	Powder	✓	276045	-	-
Silica		0,05 - 4.0 mg/l SiO_2	M350 / Si	Tablet	Tablets	276110	-	-
		0,1 - 1,6 mg/l SiO_2	M351 / SiLr	Powder	✓	276115	-	-
		1 - 90 mg/l SiO_2	M352 / SiHr	Powder	✓	276116	-	-
Suspended solids		10 - 750 mg/l TSS	M384 / SuS	without	without reagents	276150	-	-

Photometry

2in1

Instrument with Parameter	OTZ*	Range	Method name Handbook / Display	usable reagent form	delivery content incl. reagents	MD 100	MD 110	MD 200
Chlorine Tablet	✓	0,01 - 6,0 mg/l Cl_2	M100 / CL6	Tablet or Liquid	Tablets for Chlorine, pH	278020	-	-
		0,02 - 4 mg/l Cl_2	M101 / CL6					
		0,1 - 10 mg/l Cl_2**	M103 / CL10	Tablet	Liquid reagents for Chlorine, pH	278025	-	-
pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				
Chlorine Powder		0,02 - 2,0 mg/l Cl_2	M110 / CL2	Powder	Powder reagents for Chlorine, Tablets for pH	278030	-	-
		0,1 - 8,0 mg/l Cl_2 (10 mm multi vial-2)	M111 / CL8	Powder				
pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				
Copper	✓	0,05 - 5,0 mg/l Cu	M150 / Cu	Tablet	Tablets for Cu und pH	-	-	2872102
pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				
Hydrogen-peroxide		1 - 50 mg/l H_2O_2 40 - 500 mg/l H_2O_2	M213 / HP1 M214 / HP2	Liquid	Liquid reagents for H_2O_2 and pH	-	-	2888102
pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				

3in1

Instrument with Parameter	OTZ*	Range	Method name Handbook / Display	usable reagent form	delivery content incl. reagents	MD 100	MD 110	MD 200
Chlorine	✓	0,01 - 6,0 mg/l Cl_2	M100 / CL6	Tablet or	Tablets for Chlorine, pH, CyA	278010	2980102	2860102
		0,02 - 4 mg/l Cl_2	M101 / CL6	Liquid	Tablets CyA Liquid reagents for Chlorine, pH	278015	2980152	2882002
		0,1 - 10 mg/l Cl_2**	M 103 / CL10	Tablet				
pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				
Cyanuric acid		0 - 160 mg/l Cya	M160 / CyA	Tablet				
Chlorine	✓	0,01 - 6,0 mg/l Cl_2	M100 / CL6	Tablet or	Tablets for Chlorine, pH, Alka-M	278060	-	2889002
		0,02 - 4 mg/l Cl_2	M101 / CL6	Liquid	Tablets Alka-M Liquid reagents for Chlorine, pH	278065	-	2889302
		0,1 - 10 mg/l Cl2**	M 103 / CL10	Tablet				
pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				
Alkalinity-m		5 - 200 mg/l $CaCO_3$	M30 / tA	Tablet				
Chlorine		0,01 - 6,0 mg/l Cl_2	M100 / CL6	Tablet or	Tablets for Chlorine, Chlorine dioxide	278000	-	-
		0,02 - 4 mg/l Cl_2	M101 / CL6	Liquid				
Chlorine HR (KI)		5 - 200 mg/l Cl_2	M105 / CLHr	Tablet				
Chlorine dioxide		0,02 - 11 mg/l ClO_2	M120 / CLO2	Tablet				
Chlorine	✓	0,01 - 6,0 mg/l Cl_2	M100 / CL6	Tablet or	Tablets for Chlorine, pH, Bromine	-	-	2861802
		0,02 - 4 mg/l Cl_2	M101 / CL6	Liquid				
pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				
Brome		0,05 - 13 mg/l Br_2	M80 / Br	Tablet				
Chlorine	✓	0,01 - 6,0 mg/l Cl_2	M100 / CL6	Tablet or	Tablets for Chlorine, pH, Acid capacity	-	-	2889012
		0,02 - 4 mg/l Cl_2	M101 / CL6	Liquid	Tablets Acid capacity Liquid reagents for Chlorine, pH	-	-	2889202
		0,1 - 10 mg/l Cl_2**	M 103 / CL10	Tablet				
pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				
Acid capacity		0,1 - 4,0 mmol/l $KS_{4.3}$	M20 / S:4.3	Tablet				

* OTZ (zero adjustment applies to all methods of the measuring instrument)
** Delivery without reagents
Green Chemistry

4in1

Instrument with Parameter	OTZ*	Range	Method name Handbook / Display	usable reagent form	delivery content incl. reagents	MD 100	MD 110	MD 200
Chlorine	✓	0,01 - 6,0 mg/l Cl_2	M100 / CL6	Tablet or	Tablets for Chlorine, pH, CyA, Alka-M	278070	2980702	2860502
		0,02 - 4 mg/l Cl_2	M101 / CL6	Liquid	Tablets for CyA, Alka-M Liquid reagents for Chlorine and pH	278075	2980752	2860542
		0,1 - 10 mg/l Cl_2**	M 103 / CL10	Tablet				
pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				
Cyanuric Acid		0 - 160 mg/l Cya	M160 / CyA	Tablet				
Alkalinity-m		5 - 200 mg/l $CaCO_3$	M30 / tA	Tablet				
Chlorine DUO		0,01 - 6,0 mg/l Cl_2	M100 / CL6	Tablet	Powder reagents for Chlorine, Tablets for Chlorine, pH, CyA, Alka-M	278160	-	-
		0,02 - 3,5 mg/l Cl_2	M113 / CL2	Powder				
		5 - 200 mg/l Cl_2**	M105 / CLHr	Tablet				
pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				
Alkalinity-m		5 - 200 mg/l $CaCO_3$	M30 / tA	Tablet				
Hardness, Calcium		0 - 500 mg/l $CaCO_3$	M191 / CAH	Tablet				
Chlorine	✓	0,01 - 6,0 mg/l Cl_2	M100 / CL6	Tablet or	Tablets for Chlorine, pH, CyA and Acid Capacity	-	-	2860512
		0,02 - 4 mg/l Cl_2	M101 / CL6	Liquid	Tablets for CyA and Acid Capacity Liquid reagents for Chlorine and pH	-	-	2860522
		0,1 - 10 mg/l Cl_2**	M103 / CL10	Tablet				
pH		6,5 - 8,4 pH	M330/331 / pH	Tablet/Liquid				
Cyanuric Acid		0 - 160 mg/l Cya	M160 / CyA	Tablet				
Acid Capacity		0,1 - 4,0 mmol/l $KS_{4.3}$	M20 / S:4.3	Tablet				
Chlorine	✓	0,01 - 6,0 mg/l Cl_2	M100 / CL6	Tablet or	Tablets for Chlorine, pH, Acid Capacity, Urea (add. Liquid)	-	-	2862912
		0,02 - 4 mg/l Cl_2	M101 / CL6	Liquid				
		0,1 - 10 mg/l Cl_2**	M103 / CL10	Tablet				
pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				
Acid Capacity		0,1 - 4,0 mmol/l $KS_{4.3}$	M20 / S:4.3	Tablet				
Urea		0,1 - 2,5 mg/l Urea	M390 / Ur1	Tablet/Liquid				
		0,2 - 5 mg/l Urea (by dilution)	M391 / Ur2					
Chlorine	✓	0,01 - 6,0 mg/l Cl_2	M100 / CL6	Tablet or	Tablets for Chlorine, Chlorine dioxide, pH, Acid Capacity	-	-	2863802
		0,02 - 4 mg/l Cl_2	M101 / CL6	Liquid				
		0,1 - 10 mg/l Cl_2**	M103 / CL10	Tablet				
Chlorine dioxide		0,02 - 11 mg/l ClO_2	M120 / CLO2	Tablet				
pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				
Acid Capacity		0,1 - 4,0 mmol/l $KS_{4.3}$	M20 / S:4.3	Tablet				

* OTZ (zero adjustment applies to all methods of the measuring instrument)
** Delivery without reagents

Green Chemistry

Please see pages 88 onwards for reagents (order codes)

	Instrument with Parameter	OTZ*	Range	Method name Handbook / Display	usable reagent form	delivery content incl. reagents	MD 100	MD 110	MD 200
5in1	**Chlorine**	✓	0,01 - 6,0 mg/l Cl_2 0,02 - 4 mg/l Cl_2	M100 / CL6 M101 / CL6	Tablet or Liquid	Tablets for Chlorine, pH, CyA, Alka-M, CaH	278080	-	2861202
			0,1 - 10 mg/l Cl_2**	M103 / CL10	Tablet				
	pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				
	Cyanuric Acid		0 - 160 mg/l Cya	M160 / CyA	Tablet				
	Alkalinity-m		5 - 200 mg/l $CaCO_3$	M30 / tA	Tablet				
	Hardness, Calcium		0 - 500 mg/l $CaCO_3$	M191 / CAH	Tablet				
	Chlorine		0,01 - 6,0 mg/l Cl_2 0,02 - 4 mg/l Cl_2	M100 / CL6 M101 / CL6	Tablet or Liquid	Tablets for Chlorine, pH, CyA, Acid Capacity, CaH	-	-	2861212
			0,1 - 10 mg/l Cl_2**	M103 / CL10	Tablet				
	pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				
	Cyanuric Acid		0 - 160 mg/l Cya	M160 / CyA	Tablet				
	Acid Capacity		0,1 - 4,0 mmol/l $KS_{4.3}$	M20 / S:4.3	Tablet				
	Hardness, Calcium		0 - 500 mg/l $CaCO_3$	M191 / CAH	Tablet				
6in1	**Chlorine**	✓	0,01 - 6,0 mg/l Cl_2 0,02 - 4 mg/l Cl_2	M100 / CL6 M101 / CL6	Tablet or Liquid	Tablets for Chlorine, Bromine, pH, CyA, Alka-M, CaH	278090	2980902	2861902
			0,1 - 10 mg/l Cl_2**	M103 / CL10	Tablet				
	Bromine		0,05 - 13 mg/l Br_2	M80 / Br	Tablet				
	pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				
	Cyanuric Acid		0 - 160 mg/l Cya	M160 / CyA	Tablet				
	Alkalinity-m		5 - 200 mg/l $CaCO_3$	M30 / tA	Tablet				
	Hardness, Calcium		0 - 500 mg/l $CaCO_3$	M191 / CAH	Tablet				
	Chlorine	✓	0,01 - 6,0 mg/l Cl_2 0,02 - 4 mg/l Cl_2	M100 / CL6 M101 / CL6	Tablet or Liquid	Tablets for Chlorine, Bromine, pH, CyA, Acid Capacity, CaH	-	-	2861912
			0,1 - 10 mg/l Cl_2**	M103 / CL10	Tablet				
	Bromine		0,05 - 13 mg/l Br_2	M80 / Br	Tablet				
	pH		6,5 - 8,4 pH	M330 / M331 / pH	Tablet/Liquid				
	Cyanuric Acid		0 - 160 mg/l Cya	M160 / CyA	Tablet				
	Acid Capacity		0,1 - 4,0 mmol/l $KS_{4.3}$	M20 / S:4.3	Tablet				
	Hardness, Calcium		0 - 500 mg/l $CaCO_3$	M191 / CAH	Tablet				
	Chlorine	✓	0,01 - 6,0 mg/l Cl_2 0,02 - 4 mg/l Cl_2	M100 / CL6 M101 / CL6	Tablet or Liquid	Tablets for Chlorine, Bromine, pH, CyA, Alka-M, Copper, Iron	-	-	2862102
			0,1 - 10 mg/l Cl_2**	M103 / CL10	Tablet				
	pH		6,5 - 8,4 pH	M330/331 / pH	Tablet/Liquid				
	Cyanuric Acid		0 - 160 mg/l Cya	M160 / CyA	Tablet				
	Alkalinity-m		5 - 200 mg/l $CaCO_3$	M30 / tA	Tablet				
	Copper		0,05 - 5,0 mg/l Cu	M150 / Cu	Tablet				
	Iron		0,02 - 1,0 mg/l Fe	M220 / FE	Tablet				

* OTZ (zero adjustment applies to all methods of the measuring instrument)
** Delivery without reagents
Green Chemistry

Delivery Content

- Instrument in carrying case
- **MD 100 & MD 110**
  4 micro batteries (AAA)
  MD 200
  4 micro batteries (AA),
- 3 round vials (glass) with lids
- 1 stirring rod & 1 brush & syringe
- Reagents (see tables)
- Warranty information
- Certificate (Certificate of Compliance)
- Instruction Manual

	Instrument with Parameter	OTZ*	Range	Method name Handbook / Display	usable reagent form	delivery content incl. reagents		MD 100	MD 110	MD 200
Boiler Water	**Aluminium**		0,01 - 0,25 mg/l Al	M50 /AL (PP)	Powder	without reagents	276230	2962302	-	
	Iron		0,03 - 2 mg/l $Fe^{2+/3+}$	M225 / FE (L)	Liquid					
	Copper		0,3 - 5,0 mg/l Cu	M150 / Cu (T)	Tablet					
	Silica		1 - 90 mg/l SiO_2	M352 / SiHr (PP)	Powder					
	Chloride		0,5 - 20 mg/l Cl^-	M92 / CL- (L)	Liquid					
	Phosphate		5 - 80 mg/l PO_4	M335 / PO4 (L)	Liquid					
	Oxygen (dissolved)		10 - 800 µg/l O_2	M292 / O2	Vacu-vials					
	DEHA		20 - 500 µg/l DEHA	M167 / DEHA (PP)	Powder					
	Hydrazine		50 - 500 µg/l N_2H_4	M205 / Hydr (P)	Powder					
	Polyacrylates		1 - 30 mg/l Polyacrylates	M338 / POLY (L)	Liquid					
Cooling Water	**Bromine**		0,05 - 13 mg/l Br_2	M80 / Br (T)	Tablet	without reagents	276240	2962402	-	
	Chlorine		0,01 - 6,0 mg/l Cl_2	M100 / CL6 (T)	Tablet					
	Chlorine HR (KI)		5 - 200 mg/l Cl_2	M105 / CLHr (T)	Tablet					
	Chlorine dioxide		0,02 - 11 mg/l ClO_2	M100 / CL6 (T) (Factor 1,9)	Tablet					
	Ozone		0,02 - 2 mg/l O_3	M300 / O3 (T)	Tablet					
	Aluminium		0,01 - 0,25 mg/l Al	M50 /AL (PP)	Powder					
	Iron		0,03 - 2 mg/l $Fe^{2+/3+}$	M225 / FE (L)	Liquid					
	Iron in Mo		0,01 - 1,8 mg/l Fe	M224 / FEM(PP)	Powder					
	Copper		0,3 - 5,0 mg/l Cu	M150 / Cu (T)	Tablet					
	Zinc		0,1 - 2,5 mg/l Zn	M405 / Zn (L)	Liquid					
	Sulfate		5 - 100 mg/l SO_4	M360 / SO4 (PP)	Powder					
	Molybdenum		0,03 - 3 mg/l Mo	M251 / Mo1 (PP)	Powder					
			0,6 - 60 mg/l Mo	M254 / Mo2 (L)	Liquid					
	Triazoles		1 - 16 mg/l Benzotriazoles	M388 / tri (PP)	Powder					
	Polyacrylates		1 - 30 mg/l Polyacrylates	M338 / POLY (L)	Liquid					

Please see pages 88 onwards for reagents (order codes)

Accessories

Item	Code
Set of 12 round vials with lid height 48 mm, Ø 24 mm	19 76 20
Set of 5 round vials with lid height 48 mm, Ø 24 mm	19 76 29
Satz à 10 round vials with lid, height 90 mm, Ø 16 mm	19 76 65
Adapter for round vials ø 16 mm	19 80 21 90
Set of 12 plastic vials (PC), with lid **"Multi"-Type 2**, □ 10 mm	19 76 00
Vial stand for 6 round vials Ø 24 mm, acrylic glass	41 89 51
Vial stand for 10 vials (Ø 16 mm), acrylic glass	41 89 57
Mixing cylinder, 25 ml, with stopper required accessory for molybdenum LR test with MD 100 (276140)	19 80 26 50
Membrane filter set for use when preparing samples, 25 membrane filters, 0.45 µm, 2 syringes 20 ml	36 61 50
Cleaning cloth for vials	19 76 35
Set of 12 sealing rings for round vial ø 24 mm	19 76 26
4 micro batteries (AAA) MD 100, MD 110	19 50 026
4 batteries (AA) MD 200	19 50 025
Battery lid MD 100, MD 110	19 80 26 17
Battery lid MD 200	19 80 22 41
Measuring beaker, volume 100 ml	38 48 01
Plastic funnel with handle	47 10 07
Plastic stirring rod, 13 cm length	36 41 00
Plastic stirring rod, 13 cm length, (10 pcs.)	36 41 20
Plastic stirring rod, 10 cm length	36 41 09
Plastic stirring rod, 10 cm length, (10 pcs.)	36 41 30
Infrared data transfer module IRiM (MD 100, MD 200 only)	21 40 50
Bluetooth-Dongle and Software (MD110 only)	24 44 480

Technical Data	MD 100	MD 110	MD 200
Interface for data transfer	Infrared interface (IRiM needed)	**Bluetooth®**-interface	Infrared interface (IRiM needed)
Storage	internal ring memory for **16** data sets	internal ring memory for **125** data sets	internal ring memory for **16** data sets
Power Supply	4 micro batteries (AAA), capacity approx. 17 hours or approx. 5000 tests in continuous operation with the display lighting switched off	4 micro batteries (AAA), capacity approx. 17 hours or approx. 5000 tests in continuous operation with the display lighting and **Bluetooth®** Function switched off	4 batteries (AA), capacity approx. 53 hours or 15000 tests (continuous operation without display lighting)
Dimensions	155 x 75 x 35 mm (L x W x H)		190 x 110 x 55 mm (L x W x H)
Weight	basic unit ca. 260 g		basic unit ca. 455 g (batteries incl.)
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 Δ λ = 5 nm 530 nm Δ λ = 5 nm 560 nm Δ λ = 5 nm 580 nm Δ λ = 5 nm 610 nm Δ λ = 6 nm 660 nm Δ λ = 5 nm		
Wavelength Accuracy	± 1 nm		
Photometric Accuracy[4)]	3 % FS (T = 20 °C - 25 °C)		
Photometric Resolution	0,01 A		
Absorption range	-2600 to 2600 m Abs		
Auto - OFF	automatic switch-off		
Display	backlit LCD (on keypress)		
Time	real time clock and date		
Calibration	factory calibration and user calibration. Reset to factory calibration possible		
Environmental conditions	temperature: 5 - 40 °C rel. humidity: 30 - 90 % (non condensing)		
Conformity	CE		

[4)] tested with standard solutions

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