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MD600 Multi-Parameter Colorimeter

All-in-One Solution for Accurate Field Testing

- Pre-programmed with 118 methods for water analysis
- Rugged design for use in the field
- Easy to use, multi-lingual user interface
- Display only the tests you need by setting up a User's Favorite list

Part Number: 214020

Easy Access to new testing parameter and ranges

Never have an outdated instrument again! As additional test methods become available, the new software update is available as a free download on our website.

On-screen access to important test information

Using the correct reagent and sample cell for a preprogrammed calibration curve is essential to achieving accurate results. With the push of a button, it's easy to confirm what is required for the test. The method information will also show which conversion factors can be automatically applied to a method, so results are displayed in the required reporting units.

No Need to memorize method numbers to access a testing method

The scroll-driven menu system allows you to navigate to the test you need without the need to memorize the test method number. In addition, a Users Favorite Menu can be defined so that the instrument displays only the testing methods you want to see,

Data Storage and Transfer Capabilities

Store up to 1,000 readings with location ID, time and date stamp. Test data stored on the instrument can be easily exported using the IRiM accessory, which uses an infrared connection to export data directly to an Excel or .txt file.

Choice of Reagent Platforms

With over 100 pre-programmed testing methods on one instrument, many parameters offer the choice of using Tablet, Powder Pack or Liquid reagents.

Create User-Defined Calibration Curves

Have a proprietary testing method or a requirement to conform to a specific governmental or organizational standard method? Tired of converting ABS or %T values into meaningful values? It's easy to create and store as many as 35 user-defined methods on the MD 600 series. Up to a 25 order polynomial along with test parameters such as wavelength, measuring range, unit type and number of decimals displayed can be defined and implemented.

Accurate, Reproducible Results

The optical system of the MD600 series operates with six unique wavelengths. By utilizing LEDs and interference filters, the instrument quickly gives you results that you can be confident in.

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.

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 | Disinfection Control | Drinking Water Treatment | Food and Beverage | Galvanization |

Others | Pool Water Control | Raw Water Treatment | Waste Water Treatment

MD 600

The MD600 Colorimeter is the ideal instrument for testing multiple water quality parameters outside of a laboratory setting. Featuring over 100 testing methods, this instrument provides and "all-in-one" solution for a wide variety of applications and industries.

Designed for use out in the field, the MD600 colorimeter is rugged, and supplied ready-to-use in a carrying case with key accessories.

Measuring Range

Test Name	Measuring Range	Chemical Method
Alkalinity-m HR T	5 - 500 mg/L $CaCO_3$	Acid / Indicator
Alkalinity-m T	5 - 200 mg/L $CaCO_3$	Acid / Indicator
Alkalinity-p T	5 - 500 mg/L $CaCO_3$	Acid / Indicator
Aluminium PP	0.01 - 0.25 mg/L Al	Eriochrom Cyanine R
Aluminium T	0.01 - 0.3 mg/L Al	Eriochrom Cyanine R
Ammonia HR TT	1.0 - 50 mg/L N	Salicylate
Ammonia LR TT	0.02 - 2.5 mg/L N	Salicylate
Ammonia PP	0.01 - 0.8 mg/L N	Salicylate
Ammonia T	0.02 - 1 mg/L N	Indophenole Blue
Bromine PP	0.05 - 4.5 mg/L Br_2	DPD
Bromine T	0.05 - 13 mg/L Br_2	DPD
Chloramine (M) PP	0.02 - 4.5	Indophenole method
Chloride L (B)	0.5 - 20 mg/L Cl^-	Mercury Thiocyanate / Iron Nitrate
Chloride T	0.5 - 25 mg/L Cl^-	Silver Nitrate / Turbidity
Chlorine (free) and Monochloramine	0.02 - 4.50 mg/L Cl_2	Indophenole method
Chlorine dioxide PP	0.04 - 3.8 mg/L ClO_2	DPD
Chlorine dioxide T	0.02 - 11 mg/L ClO_2	DPD / Glycine
Chlorine HR 2 PP	0.1 - 10 mg/L Cl_2	DPD
Chlorine HR (KI) T	5 - 200 mg/L Cl_2	KI / Acid
Chlorine HR PP	0.1 - 8 mg/L Cl_2 [a]	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 MR PP	0.02 - 3.5 mg/L Cl_2 [a]	DPD
Chlorine PP	0.02 - 2 mg/L Cl_2 [a]	DPD
Chlorine T	0.01 - 6.0 mg/L Cl_2 [a]	DPD
Chlorite T	0.03 - 2.5 mg/L ClO_2^-	DPD
Chromium PP	0.02 - 2 mg/L Cr[b]	Diphenylcarbazide
COD HR TT	200 - 15000 mg/L COD[b]	Dichromate / H_2SO_4
COD LMR TT	15 - 300 mg/L COD[b]	Dichromate / H_2SO_4
COD LR TT	3 - 150 mg/L COD[b]	Dichromate / H_2SO_4
COD MR TT	20 - 1500 mg/L COD[b]	Dichromate / H_2SO_4
Copper L	0.05 - 4 mg/L Cu[a]	Bicinchoninate
Copper PP	0.05 - 5 mg/L Cu	Bicinchoninate
Copper T	0.05 - 5 mg/L Cu[a]	Biquinoline
Copper VLR PP	2 - 210 µg/L Cu	Porphyrine Indicator
CyA HR T	10 - 200 mg/L CyA	Melamine
Cyanide L	0.01 - 0.5 mg/L CN^-	Pyridine-barbituric Acid
CyA T	10 - 160 mg/L CyA	Melamine
DEHA PP	0.02 - 0.5 mg/L DEHA	PPST
DEHA T (L)	0.02 - 0.5 mg/L DEHA	PPST
Fluoride 2 L	0.1 - 2 mg/L F^-	SPADNS
Fluoride L	0.05 - 2 mg/L F^-	SPADNS
H_2O_2 HR L	40 - 500 mg/L H_2O_2	Titanium Tetrachloride / Acid
H_2O_2 LR L	1 - 50 mg/L H_2O_2	Titanium Tetrachloride / Acid
H_2O_2 T	0.03 - 3 mg/L H_2O_2	DPD / Catalyst
Hardness Ca and Mg L	0.05 - 4 mg/L $CaCO_3$	Calmagite
Hardness Ca and Mg MR TT	10 - 360 mg/L $CaCO_3$	Calmagite
Hardness Calcium (B) T	20 - 500 mg/L $CaCO_3$	Murexide
Hardness Calcium (B) T	50 - 900 mg/L $CaCO_3$	Murexide
Hardness total HR T	20 - 500 mg/L $CaCO_3$ [i]	Metallphthaleine
Hardness total T	2 - 50 mg/L $CaCO_3$	Metallphthaleine
Hazen 24	10 - 500 mg/L Pt	(APHA) Platinum Cobalt Standard Method
Hydrazine L	0.01 - 0.6 mg/L N_2H_4	Dimethylaminobenzaldehyde
Hydrazine P	0.05 - 0.5 mg/L N_2H_4	Dimethylaminobenzaldehyde
Hypochlorite T	0.2 - 16 % NaOCl	Potassium Iodide
Iron (TPTZ) PP	0.02 - 1.8 mg/L Fe	TPTZ
Iron HR L	0.1 - 10 mg/L Fe	Thioglycolate
Iron in Mo PP (224)	0.01 - 1.8 mg/L Fe	TPTZ
Iron LR L (A)	0.03 - 2 mg/L Fe	Ferrozine / Thioglycolate
Iron LR L (B)	0.03 - 2 mg/L Fe	Ferrozine / Thioglycolate
Iron PP	0.02 - 3 mg/L Fe[g]	1,10-Phenanthroline
Iron T	0.02 - 1 mg/L Fe	Ferrozine / Thioglycolate
$K_{S4.3}$ T	0.1 - 4 mmol/L $K_{S4.3}$	Acid / Indicator
Iodine T	0.05 - 3.6 mg/L I_2	DPD
Manganese HR PP	0.1 - 18 mg/L Mn	Periodate Oxidation
Manganese L	0.05 - 5 mg/L Mn	Formaldoxime
Manganese LR PP	0.01 - 0.7 mg/L Mn	PAN
Manganese T	0.2 - 4 mg/L Mn	Formaldoxime
Molybdate HR L	1 - 100 mg/L MoO_4	Thioglycolate
Molybdate HR PP	0.3 - 40 mg/L Mo	Mercaptoacetic Acid
Molybdate LR PP	0.03 - 3 mg/L Mo	Ternary Complex
Molybdate T	1 - 50 mg/L MoO_4	Thioglycolate
Nickel L	0.2 - 7 mg/L Ni	Dimethylglyoxime
Nitrate MR PP	1 - 30 mg/L NO_3-N	Zinc Reduction
Nitrate T	0.08 - 1 mg/L N	Zinc Reduction / NED
Nitrate TT	1 - 30 mg/L N	Chromotropic Acid
Nitrite HR PP	2 - 250 mg/L NO_2^-	Ferrous Sulfate Method
Nitrite HR TT	0.3 - 3 mg/L N	Sulfanilic / Naphthylamine
Nitrite LR TT	0.03 - 0.6 mg/L N	Sulfanilic / Naphthylamine
Nitrite PP	0.01 - 0.3 mg/L N	Diazotation
Nitrite T	0.01 - 0.5 mg/L N	N-(1-Naphthyl)-ethylendiamine
Nitrite VHR L	25 - 2500 mg/L NO_2^-	Ferrous Sulfate Method
Oxygen active T	0.1 - 10 mg/L O_2	DPD
Oxygen dissolved C	10 - 800 µg/L O_2 [c]	Rhodazine D TM
Ozone PP	0.015 - 1.2 mg/L O_3	DPD / Glycine
Ozone T	0.02 - 2 mg/L O_3	DPD / Glycine
Phenol T	0.1 - 5 mg/L C_6H_5OH	4-Aminoantipyrine
PHMB T	2 - 60 mg/L PHMB	Buffer / Indicator
Phosphate h. TT	0.02 - 1.6 mg/L P[b]	Phosphomolybdenum Blue
Phosphate HR C	1.6 - 13 mg/L P[c]	Vanadomolybdate
Phosphate HR L	5 - 80 mg/L PO_4	Vanadomolybdate
Phosphate HR T	0.33 - 26 mg/L P	Vanadomolybdate
Phosphate HR TT	1 - 20 mg/L P	Vanadomolybdate
Phosphate LR C	0.02 - 1.6 mg/L P[c]	Stannous Chloride
Phosphate LR L	0.1 - 10 mg/L PO_4	Phosphomolybic Acid / Ascorbic Acid

Test Name	Measuring Range	Chemical Method
Phosphate LR T	0.02 - 1.3 mg/L P	Phosphomolybdenum Blue
Phosphate PP	0.02 - 0.8 mg/L P	Phosphomolybdenum Blue
Phosphate t. TT	0.02 - 1.1 mg/L P[b)]	Phosphomolybdenum Blue
Phosphate TT	0.02 - 1.63 mg/L P	Phosphomolybdenum Blue
Phosphonate PP	0.02 - 125 mg/L PO_4	Persulfate UV Oxidation Method
pH-value HR T	8.0 - 9.6 pH	Thymol Blue
pH value L	6.5 - 8.4 pH	Phenol Red
pH-value LR T	5.2 - 6.8 pH	Bromocresolpurple
pH-value T	6.5 - 8.4 pH	Phenol Red
Polyacrylate L	1 - 30 mg/L Polyacryl	Turbidity
Potassium T	0.7 - 16 mg/L K	Tetraphenylborat Turbidity
Silicate HR PP	1 - 90 mg/L SiO_2	Silicomolybdate
Silicate L	0.1 - 8 mg/L SiO_2	Heteropolyblue
Silicate LR PP	0.1 - 1.6 mg/L SiO_2	Heteropolyblue
Silicate T	0.05 - 4 mg/L SiO_2	Silicomolybdenum Blue
Sulphate HR PP	50 - 1000	Bariumsulphate Turbidity
Sulphate PP	5 - 100 mg/L SO_4^{2-}	Bariumsulphate Turbidity
Sulphate T	5 - 100 mg/L SO_4^{2-}	Bariumsulphate Turbidity
Sulphide L	15 - 1400 mg/L Tannin	Methylene Blue
Sulphide T	0.04 - 0.5 mg/L S^{2-}	DPD / Catalyst
Sulphite T	0.1 - 5 mg/L SO_3	DTNB
Surfactants M. (anion.) TT	0.05 - 2 mg/L SDSA	Methylene Blue
Surfactants M. (cation.) TT	0.05 - 1.5 mg/L CTAB	Disulphine Blue
Surfactants M. (not ionic) TT	0.1 - 7.5 mg/L Triton X-100	TBPE
Suspended solids 24	10 - 750 mg/L TSS	Turbidity / Attenuated Radiation Method
Tannin L	0.5 - 20 mg/L Tannin	
TN HR TT	5 - 150 mg/L N[b)]	Persulphate Digestion
TN LR TT	0.5 - 25 mg/L N[b)]	Persulphate Digestion
TOC HR M. TT	50 - 800 mg/L TOC[b)]	H_2SO_4 / Persulphate / Indicator
TOC LR M. TT	5 - 80 mg/L TOC[b)]	H_2SO_4 / Persulphate / Indicator
Triazole PP	1 - 16 mg/L Benzotriazole or Tolyltriazole	Catalyzed UV Digestion
Turbidity 24	10 - 1000 FAU	Attenuated Radiation Method
Urea T	0.1 - 2.5 mg/L Urea	Indophenol / Urease
Zinc L	0.1 - 2.5 mg/L Zn	Zincon / EDTA
Zinc T	0.02 - 1 mg/L Zn	Zincon

Technical Data

Optics	LEDs, interference filters (IF) and photo sensor in transparent sample chamber. Wavelength range: 430 nm IF Δλ = 5 nm 530 nm IF Δλ = 5 nm 560 nm IF Δλ = 5 nm 580 nm IF Δλ = 5 nm 610 nm IF Δλ = 6 nm 660 nm IF Δλ = 5 nm IF = interference filter
Wavelength Accuracy	± 1 nm
Suitable Vials	Multi vial 10 mm Round Cuvettes 13 mm Round Cuvettes 16 mm Round Cuvettes 24 mm
Display	Graphic-display
Interfaces	Infrared
Operation	Acid and solvent resistant, touch-sensitive keypad with audible feedback via integrated beeper
Updates	Software updates via internet
Internal Storage	Approx. 1000 data sets
Battery Life Time	approx. 26 h
Beeper	existing
Portability	Benchtop
Compliance	CE
Languages User Interface	German, English, French, Spanish, Italian, Portuguese, Polish, Indonesian
Dimensions	3.74 x 1.77 x 8.27"

Delivery Scope

- In case
- 4 Batteries (AA)
- 3 Vials 24 mm ø
- 3 Vials 16 mm ø
- Tube Adapter, 16 mm
- Tube Adapter, 13 mm
- Plastic stirring rod 13 cm
- Brush 11 cm
- Screw driver
- Quickstart Guide
- Certificate of Conformity
- Warranty information

Please note: Supplied without reagents; please order required reagents separately.

Title	Part Number
Water Sampler & 250 mL Bottle	170500
Batteries (AA), set of 4	1950025
Multy cuvette-3, set of 12	197605
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
Sample cuvettes with lid, Height 95 mm, ø 24 mm, set of 6	197646
Round cuvette 16 mm ø, set of 10	197665
Adapter for round cuvettes 16 mm ø	19802190
Adapter for round cuvettes 13 mm Ø	19802192
Rubber seal cap	19802223
Mixing cylinder with stopper, 25 mL	19802650
Update cable	214030
Update cable set with USB/R232 adapter	214031
Reference Standard Kit Chlorine - 0.2 and 1.0 mg/l (MD/PM 600 series)	215630
Reference Standard Kit Chlorine - 0.5 and 2.0 mg/l (MD/PM 600 series)	215635
Reference Standard Kit Chlorine - 1.0 and 4.0 mg/l (MD/PM 600 series)	215636
Verification Standard Kit MD 600	215640
RD125 Thermoreactor, 16mm tubes, 24 slots	2418940
Standard Solution Ammonia, 1.3 mg/l NH_4 = 1.0 mg/l N	2420800
Standard Solution Ammonia, 5.2 mg/l NH_4 = 4.0 mg/l N	2420801
Standard Solution Ammonia, 26 mg/l NH_4 = 20 mg/l N	2420802
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
Box mit 96 pipette tips 200 µL	365032
Pipette 100 µl	365041
Pipette, 200 µl	365042

Title	Part Number
Pipette, 1000 µl	365045
Membrane filter set for use when preparing samples, 25 membrane filters 0.45 µm, 2 syringes 20 ml	366150
250 mL bottle with cap	375072
Brush, 11 cm length	380230
Measuring beaker, 100ml	384801
Measuring spoon, 1 g	384930
UV Pen Lamp, 254 nm	400740
UV protection glasses, orange	400755
Cuvette stand for 6 round cuvettes Ø 24 mm	418951
Cuvette stand for 10 round cuvettes Ø 16 mm	418957
Pipette tips, 1-5 ml (white) 100 pc.	419066
Pipette tips, 0,1-1 ml (blue), 1000 pc.	419073
Automatic pipette, 1-5 ml	419076
Screw caps TOC	420757
Measuring spoon no. 8, black	424513
Plastic funnel with handle (white)	471007
ValidCheck Chlorine 1,5 mg/l	48105510
Stirring rod and spoon	56A006601

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