

Water analysis instruments





Accurate results, within your reach.

We've got you covered.

At Thermo Fisher Scientific, we combine intelligent design with quality craftsmanship to give you the tools you need for effective water analysis, whether in the lab or in the field.

Recognized worldwide, our water analysis instruments combine accuracy and precision with intuitive operation, dependability, and ease of use. And our products are backed by substantial research and development and built with an unmatched standard of excellence.

Spectrophotometers

Lab intelligence

A good lab depends on expert equipment.

Thermo Scientific™ Orion™ AquaMate™ Spectrophotometers are designed specifically for water and wastewater analysis





AquaMate 7100 Visible Spectrophotometer

- Visible wavelengths from 325 to 1100nm
- Single-beam optics and tungsten-halogen lamp
- 5nm spectral bandwidth
- Easy-to-use glove-friendly touchscreen user interface
- 1-year warranty

AquaMate 8100 UV-Visible Spectrophotometer

- UV-Visible wavelengths from 190 to 1100nm
- Dual-beam optics and xenon flash lamp (no warm-up required)
- 2nm spectral bandwidth
- Wavelength scanning at speeds up to 1,600nm per minute
- Easy-to-use glove-friendly touchscreen user interface
- 1-year warranty

Depending on the needs of your lab, choose the AquaMate 7100 Visible Spectrophotometer for 325

Specifications	AquaMate 8100 UV-Visible Spectrophotometers	AquaMate 7100 Visible Spectrophotometers
Optical Design	Dual beam	Dual beam
Spectral Bandwidth	2nm	5nm
Light Source (Typical Lifetime)	Xenon flash lamp (5 years)	Tungsten-halogen lamp (1000 hours)
Detector	Dual silicon photodiodes	Dual silicon photodiodes

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Cat. No.	Description
AQ8100	AquaMate 8100 Visible Spectrophotometer, adjustable round vial holder (12 to 25mm), 10mm square vial holder, dust cover, USB cable, with North America, Europe, and UK power cords
AQ8100APAC	AquaMate 8100 Visible Spectrophotometer, adjustable round vial holder (12 to 25mm), 10mm square vial holder, dust cover, USB cable, with China, India, and Australia/NZ power cords
AQ7100	AquaMate 7100 Visible Spectrophotometer, adjustable round vial holder (12 to 25mm), dust cover, USB cable, with North America, Europe, and UK Power cords
AQ8100APAC	AquaMate 7100 Visible Spectrophotometer, adjustable round vial holder (12 to 25mm), dust cover, USB cable, with China, India, and Australia/NZ Power cords
AQX1RNDVH	Vial/tube holder, 12 to 25mm
AQX1SQVH	Standard 10mm square single-cell holder
AQX1LWLVH	Long path rectangular cell holder (20 to 100mm cuvettes)
AQX1TTTCVR	Tall test tube cover (up to 150mm)
AQX1FLTRHDR	Film/filter holder for filters/lenses, max. size: 50 x 80 x 10mm
AQ71LMPTGST	Replacement tungsten-halogen lamp, for AquaMate 7100
AQ81LMPXEN	Replacement xenon lamp assembly, AquaMate 8100
AQX1PRNTR	Snap-on printer for AquaMate 7100 and 8100 models
AC2V16	Replacement 16mm vials, 10/pack
AC2V24	Replacement 24mm vials, 12/pack
AC3V25	Replacement 25mm vials, 3/pack



Thermo Scientific™ Orion™ AQ4000 Colorimeter

Offers multiple preprogrammed reagent chemistries



Incident Light Source	6 light emitting diodes (LED)
Fixed Wavelengths	430, 530, 560, 580, 610, 660 nm
Wavelength Accuracy	±1nm
Photometric Accuracy	±0.005 Abs
Sample Cell Compatibility	13 mm, 16mm and 24 mm round
Power	4 AA batteries
Warranty	2 years

AQ4000 Colorimeter	Specifications
Incident Light Source	4 light emitting diodes (LED)
Wavelengths	420, 520, 580, 610 nm
Wavelength Accuracy	±2nm
Photometric Accuracy	±0.005 A
Sample Cell Compatibility	13, 16, and 24mm round cells
Power	4 AA batteries
Warranty	2 years

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Cat. No.	Description
AQ3700	AQ3700 meter with 4 AA batteries, 24 mm vials, 16 mm vials, 16 mm vial adapter, 13 mm vial adapter, field case, user guide with test methods, tablet tampering stir rod and vial cleaning brush
AC2V16	Replacement 16mm vials, 10/pack
AC2V24	Replacement 24mm vials, 12/pack
AC3SR24	Sealing rings for 24mm vials, 12/pack
AC3VSK	Verification standard kit, set of 6
AQ37IRIM	IRIM data transfer device
AC3CBR	Vial cleaning brush, 5/pack
COD165	Digestion methods thermoreactor, pre-set for 100°, 120°, 150°, 160°, and 165°C
CODS01	COD standard, 1000ppm, 475mL
CODS10	COD standard, 10000ppm, 475mL

Thermo Scientific™ Orion™ AQ4500 Turbidity Meter

All-in one capability, featuring both white and infrared light sources

The AQ4500 Turbidity Meter includes a dual source LED for readings that comply with both EPA 180.1 and ISO 7027 methods.

- Visible (white) LED light meets U.S. EPA 180.1 method requirements
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AQ4500 Turbidity Meter	Specifications
Incident Light Source	Dual source - white and IR LED lights
Measurement Modes	Nephelometric: EPA 180.1, ISO Absorbance: ISO Radiometric: IR % Transmittance EPA GLI method 2 EBC (European Brewing Chemists) ASBC (American Society of Brewing Chemists)
Measurement Ranges	0 to 4000 NTU EPA: 0 to 2000 NTU GLI range: 0 to 40 NTU ISO-7027: 0 to 150 FAU IR Ratio: 0 to 4000 NTU EBC: 0 to 24.5 ASBC: 0 to 236
Resolution	0.01 (0 to 9.99 NTU), 0.1 (10 to 99.9), 1 (100 to 4000)
Sample Cell Compatibility	24mm round cell
Power	4 AA batteries
Warranty	2 years

AQ3010 Turbidity Meter	Specifications
Incident Light Source	IR LED
Measurement Modes	ISO nephelometric
Measurement Ranges	0.01 to 1000 NTU
Resolution	0.01 (0.01 to 19.99 NTU), 0.1 (20 to 99.9), 1 (100 to 1000)
Sample Cell Compatibility	25 mm round
Power	4 AAA batteries
Warranty	3 years

Cat. No.	Description
AQ3010	AQ3010 Meter with 4 AAA batteries, EPA approved primary standard kit, 25mm turbidity vials, field case, user guide, silicone oil, and cloth
AC3V25	Replacement 25mm vials, 3/pack
AC301S	EPA approved and ISO accepted polymer-based primary turbidity standard kit, set of 4
AC3SIL	Silicon oil and cloth
AC3CBR	Vial cleaning brush, 5/pack

Vnd cloth

Thermo Scientific™ Orion™ AQ3170 Chlorine Meter

Robust design for accurate chlorine measurements

Measure free and total chlorine in the range of 0.02 to 2.00mg/L;
measure from 0.1 to 8.00mg/L with the short path length vial (included).

- Easy-to-read, back-lit display
- Calibration to regulatory standards (NIST, ISO)
- 16-point internal automatic data storage with date/time stamp
- One-time zero function
- IP-67 waterproof design
- Accounts for interferences known to be present in the samples

Thermo Scientific™ Orion™ AQ3140 COD Meter

Portable easy to use chemical oxygen demand

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AQ3170 Chlorine Meter	Specifications
Light Source	LED, interference filter (IF) and photosensor in transparent cell chamber
Measurement Modes	Free and total chlorine
Range	0.02 to 2.00mg/L (regular path) 0.1 to 8.0mg/L (short path)
Accuracy	±0.05mg/L (0.02 to 1.00mg/L) ±0.10mg/L (1.01 to 2.00mg/L) ±0.20mg/L (2.01 to 3.00mg/L) ±0.30mg/L (3.01 to 4.00mg/L) ±0.40mg/L (4.01 to 8.00mg/L)
Photometric Resolution	0.1A
Sample Cell Compatibility	10mm or 24mm round
Power	4 AA batteries

Cat. No.	Description
AQ3170	AQUAfast AQ3170 Chlorine Colorimeter with free and total chlorine powder packs (100 each), sample vials with lids, field case, batteries, and user guide

AQ3140 COD Meter	Specifications
Incident Light Source	LED, interference filter (IF) and photosensor in transparent cell chamber
Measurement Modes	Chemical oxygen demand
Measurement Ranges	Low Range: 0 – 150mg/L O ₂ Mid Range: 0 – 1500mg/L O ₂ High Range: 0 – 15000mg/L O ₂
Resolution	0.01A
Testing Reagents	Digestion vial tubes
Power	4 AAA batteries

Cat. No.	Description
AQ3140	AQUAfast AQ3140 COD Colorimeter with field case, batteries, and literature
CODL150	Low range COD digestion tubes, 0 to 150mg/L O ₂ , 150/pack
CODM150	Mid range COD digestion tubes, 0 to 1500mg/L O ₂ , 150/pack
CODH150	High range COD digestion tubes, 0 to 15000mg/L O ₂ , 150/pack
COD165	COD165 Thermoreactor, for COD digestion, choice of preset temperatures and run times

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Resources

for electrochemistry and water analysis equipment

Thermo Scientific Orion products

Visit thermofisher.com/water for additional information on spectrophotometry, colorimetry, and turbidity products plus laboratory and field equipment for pH, ISE, conductivity, and dissolved oxygen analysis

Water analysis instruments online library

Visit thermofisher.com/waterqualityresources to access product literature, user guides and manuals, instruction sheets, and additional support files. Visit thermofisher.com/sds for the most up-to-date SDS and C of A documents.

