

The Thermo Scientific Orion AQ3700 colorimeter offers a broad range of preprogrammed methods for all of your testing needs. The software prompts you through the test steps, ensuring conformity and consistency in gathering your important test results.

Thermo Scientific Orion AQ3700

AQUAfast Colorimeter



Markets

- Wastewater
- Drinking water
- Nutrient monitoring
- Environmental testing
- Food and Beverage
- Industrial Applications

Thermo Scientific Orion AQ3700 Colorimeter

The new Orion AQ3700's benefits can be seen in treating and monitoring effluent. The benefit of efficient operation is important to all production facilities, no matter what they make. By optimizing the process in wastewater treatment, the dirty water can move to the next stage of the process at the perfect time – not before being fully treated and not overtreated. Overtreatment wastes chemicals, slows down the processing and requires more energy to maintain the process. Undertreatment can cause problems if the discharge exceeds the permitted levels. Historically, total nitrogen and total phosphate testing required very long reflux digestion processes with expensive glassware. Now the results can be ready in an hour or so using persulfate digestion tube methods. This greatly improves

the turnaround time for the results. These in-process checks of the nutrient removal status can ensure you are on track for the final levels you need to attain plus give you timely information to correct the process if needed. In many locations, these tests are now required. With the Orion AQ3700 colorimeter and its many testing options for various nitrogen and phosphate forms, you can help reduce the harmful effects of algae blooms and ecosystem disruption in your world.

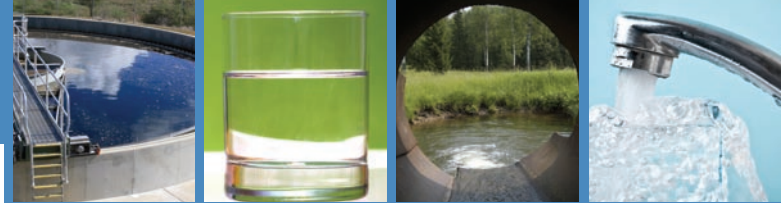
With the Orion AQ3700 colorimeter, Total Nitrogen and Total Phosphate Tube Digestion tests are now available from Thermo Scientific. If you are already testing COD levels, you can quickly add these important tests and start reaping the benefits!

Test Reagents for the Orion AQ3700

The Orion AQ3700 colorimeter offers many new parameters and test ranges. Select the parameter you need to measure, then the measurement range. Our EPA approved methods for Drinking Water and Wastewater are noted. Additionally, there are other

Orion methods that use EPA-approved test methodology and are acceptable for EPA reporting. These are noted as EPA Equivalent for the sample type. The preprogrammed tests make it easy to get quick, accurate results.

Parameter	Reagent Form	Catalog Number	Description	Range	Number of Tests	EPA Approved Methods
Alkalinity	Tablet	AC2002	AQUAfast II Alkalinity-m , Total AQUAfast Acid Demand at pH 4.3	5.0 – 200 mg/L CaCO ₃ 0.1 – 4 mmol/L	100	
	Tablet NEW	AC3002P	AQUAfast Alkalinity-p	5 – 300 mg/L CaCO ₃	100	
Aluminum	Tablet	AC2027	AQUAfast II Aluminum	0.05 – 0.30 mg/L	50	WW Equivalent
	Powder NEW	AC4P27	AQUAfast Aluminum Powder Pack	0.01 – 0.25 mg/L	100	WW Equivalent
Ammonia (Nitrogen)	Tablet	AC2012	AQUAfast II Ammonia, as Nitrogen	0.05 – 1.0; 0.5 - 10.0 mg/L	50	WW Equivalent
	Powder	AC4P12	AQUAfast Ammonia-Nitrogen, Powder	0.1 – 0.8 mg/L	100	WW Equivalent
	Liquid NEW	ACR012	AQUAfast Ammonia Reaction Tube Test	0.02 – 2.5 mg/L	50	
	Liquid NEW	ACR011	AQUAfast Ammonia Reaction Tube Test	1 – 50 mg/L	50	
Boron	Tablet NEW	AC3089	AQUAfast Boron	0.1 – 2 mg/L	100	
Bromine	Tablet	AC2035	AQUAfast II Bromine	0.1 – 13.5 mg/L	100	
Chloramine, Mono	Powder NEW	AC4P26	AQUAfast Monochloramine, Powder and Liquid	0.04 – 4.50 mg/L	50	
Chloride	Tablet	AC2017	AQUAfast II Chloride	0.5 – 25 mg/L	50	
Chlorine	Powder	AC4P71	AQUAfast Chlorine,Free, DPD, Powder Packets, EPA-approved Method	0.03 – 2.00 mg/L	100	DW
	Tablet	AC2071	AQUAfast II Chlorine, DPD, Free Only , EPA-approved Method	0.03 – 2.0 mg/L (EPA); 0.03 – 6.0 mg/L	100	DW
	Tablet	AC2070	AQUAfast II Chlorine, Free and Total, EPA-approved Method	0.03 – 2.0 mg/L (EPA); 0.03 – 6.0 mg/L	50 ea	DW - Free & Total WW -Total
	Liquid NEW	AC2070LQ	AQUAfast Chlorine Liquid Kit	0.2 – 4 mg/L	30	DW
	Powder	AC4P72	AQUAfast Chlorine,Total, DPD, Powder Packets, EPA-approved Method	0.03 – 2.00 mg/L	100	DW & WW
	Tablet	AC2072	AQUAfast II Chlorine, Total, EPA-approved Method	0.03 – 2.0 mg/L (EPA); 0.03 – 6.0 mg/L	50	DW & WW
	Tablet NEW	AC3072	AQUAfast Total Chlorine HR Tablet	5 – 200 mg/L	100	DW & WW Equivalent
Chlorine Dioxide	Tablet	AC2099	AQUAfast II Chlorine Dioxide	0.04 – 2.8 mg/L	100	
COD	Liquid	CODL00	AQUAfast COD, Low Range, EPA-approved Method	0 – 150 mg/L	25	WW
	Liquid	CODH00	AQUAfast COD, High Range, EPA-approved Method	0 – 1500 mg/L	25	WW
	Liquid	CODHP0	AQUAfast COD, Very High Range	0 – 15000 mg/L	25	WW Equivalent
Copper	Powder	AC4P29	AQUAfast Copper, Bicinchoninate, Powder	0.05 – 5.00 mg/L	100	WW Equivalent
	Tablet	AC2029	AQUAfast II Copper	0.05 – 5.0 mg/L	50	
Cyanide	Powder NEW	AC4P06	AQUAfast Cyanide Powder and Liquid	0.01 – 0.5 mg/L	200	DW & WW Equivalent
Cyanuric Acid	Tablet	AC2098	AQUAfast II Cyanuric Acid	0 – 160 mg/L	100	
DEHA	Tablet NEW	AC3088	AQUAfast DEHA Tablet and Liquid, LR	0.02 – 0.5 mg/L	100	
	Powder NEW	AC4P88	AQUAfast DEHA Powder and Liquid, HR	20 – 500 mg/L	100	
Fluoride	Liquid	AC2009	AQUAfast II Fluoride SPADNS Kit, EPA-approved Method	0.05 – 2.0 mg/L	50	DW & WW
Hardness	Tablet NEW	AC3032C	AQUAfast Hardness Calcium Tablet	50 – 900 mg/L	100	
	Tablet NEW	AC3032C2	AQUAfast Hardness Calcium 2 Tablet	20 – 500 mg/L	100	
	Tablet NEW	AC3032T	AQUAfast Hardness Total and HR Tablet	2 – 50 mg/L; 20 – 500 mg/L	100	
Hydrazine	Liquid NEW	AC3030LQ	AQUAfast Hydrazine Liquid	0.01 – 0.6 mg/L	50	
	Powder	AC2030	AQUAfast Hydrazine Powder	0.05 – 0.5 mg/L	30	
Hypochlorite	Tablet NEW	AC3072	AQUAfast Sodium Hypochlorite Tablet	0.2 – 16 %	100	
Iodine	Tablet NEW	AC3053	AQUAfast Iodine, Tablets	0.05 – 3.6 mg/L	100	
Iron	Powder	AC4P79	AQUAfast Iron Total TPTZ, Powder	0.2 – 1.80 mg/L	100	
	Powder	AC4P78	AQUAfast Iron Total Ferro, Powder	0.2 – 3.00 mg/L	100	WW Equivalent
	Tablet	AC2078	AQUAfast II Iron (I, II) Soluble, Tablet	0.02 – 1.0 ; 0.2 – 10 mg/L	100	



Parameter	Reagent Form	Catalog Number	Description	Range	Number of Tests	EPA Approved Methods
Manganese	Powder	AC4P55	AQUAfast Manganese HR, Powder	0.1 – 18 mg/L	100	WW Equivalent
	Tablet	AC2055	AQUAfast II Manganese	0.2 – 4 mg/L	50	
	Powder NEW	AC4P54	AQUAfast Manganese LR, Powder and Liquid	0.01 – 0.7 mg/L	50	
Molybdate	Powder	AC4P42	AQUAfast Molybdenum/Molybdate, HR, Powder	0.5 – 66 mg/L	100	
	Tablet NEW	AC3042	AQUAfast Molybdate Tablet	1.0 – 50.0 mg/L	100	
Monochloramine	Powder NEW	AC4P26	AQUAfast Monochloramine, Powder and Liquid	0.04 – 4.50 mg/L	50	
Nitrate	Liquid NEW	ACR007	AQUAfast Nitrate Powder and Reaction Tube	1.0 – 30.0 mg/L	50	
Nitrite	Tablet	AC2046	AQUAfast II Nitrite, EPA-approved Method	0.01 – 0.50 mg/L	100	DW & WW
	Powder NEW	AC4P46	AQUAfast Nitrite LR, Powder	0.01 – 0.350 mg/L	100	
	Ampoule NEW	AC4046NL	AQUAfast IV Nitrite	0.080 – 0.80 mg/L	30	DW & WW Equivalent
Nitrogen	Liquid NEW	ACD004	AQUAfast Total Nitrogen LR Thermal Digestion Test	0.5 – 25 mg/L	25	An approved total nitrogen method is not promulgated for WW monitoring.
	Liquid NEW	ACD007	AQUAfast Total Nitrogen HR Thermal Digestion Test	5 – 150 mg/L	25	An approved total nitrogen method is not promulgated for WW monitoring.
Oxygen	Ampoule NEW	AC4008LR	AQUAfast Oxygen, Low Range	0.02 – 2 mg/L	30	
Ozone	Tablet	AC2048	AQUAfast II Ozone	0.02 – 2 mg/L	100	
Peroxide	Tablet NEW	AC3069	AQUAfast Hydrogen Peroxide Tablet	0.03 – 3 mg/L	100	
pH	Liquid	AC3001	AQUAfast pH, Phenol Red, Dropper Bottle	5.9 – 4	60	
	Tablet	AC2001	AQUAfast II pH Tablet Phenol Red	6.5 – 8.4	100	
	Tablet NEW	AC3001BP	AQUAfast pH Tablet Bromocresol Purple	5.2 – 6.8	100	
	Tablet NEW	AC3001TB	AQUAfast pH Tablet Thymol Blue	8.0 – 9.6	100	
PHMB (Guanidine)	Tablet NEW	AC3093	AQUAfast PHMB (Biguanide) Tablet	2.0 – 60.0 mg/L	100	
Phosphate	Powder	AC4P95	AQUAfast Phosphorus 3, Powder	0.6 – 2.5 mg/L	100	DW & WW Equivalent
	Tablet	AC2096	AQUAfast II Phosphorus HR	5 – 80 mg/L	50	
	Tablet	AC2095	AQUAfast II Phosphorus LR, EPA-approved Method	0.05 – 4.0 mg/L	50	DW & WW
	Liquid NEW	ACR095	AQUAfast Ortho Phosphate Powder and Reaction Tube	0.06 – 5 mg/L	50	DW & WW Equivalent
	Liquid NEW	ACD095AH	AQUAfast Acid Hydrolyzable Phosphate Powder/Thermal Digestion Test	0.02 – 1.6 mg/L	50	DW & WW Equivalent
	Liquid NEW	ACD095	AQUAfast Total Phosphate Powder/Thermal Digestion Test	0.02 – 1.1 mg/L	50	WW Equivalent
Potassium	Tablet NEW	AC3019	AQUAfast Potassium Tablet	0.7 – 12 mg/L	100	
Silica	Powder	AC4P60	AQUAfast Silica HR, Powder Packets	1.0 – 90 mg/L	100	DW & WW Equivalent
	Tablet	AC2061	AQUAfast II Silica Phosphate Removal	NA	100	
	Tablet	AC2060	AQUAfast II Silica	0.05 – 4.0 mg/L	50	DW & WW Equivalent
	Liquid NEW	AC4P60LR	AQUAfast Silica LR Powder and Liquid	0.1 – 1.6 mg/L	50	DW Equivalent
Sodium Hypochlorite	Tablet NEW	AC3072	AQUAfast Sodium Hypochlorite Tablet	0.2 – 16 %	100	
Sulfate	Powder	AC4P82	AQUAfast Sulfate 4, Powder Packets	5 – 100 mg/L	100	DW & WW Equivalent
	Tablet	AC2082	AQUAfast II Sulfate	5 – 100 mg/L	100	DW & WW Equivalent
Sulfide	Tablet	AC2016	AQUAfast II Sulfide	0.04 – 0.50 mg/L	50	
Sulfite	Tablet	AC2080	AQUAfast Sulfite, LR	0.1 – 5 mg/L	100	
Zinc	Tablet	AC2065	AQUAfast II Zinc/Copper	0.02 – 1.0 mg/L	50	WW Equivalent

The Orion AQ3700 colorimeter offers many tests critical for the water and wastewater industries. New nutrient testing capabilities will protect our ecosystems.

AQ3700 Meter Specifications	Incident Light Source: 6 Light Emitting Diodes (LEDs)
	LED Wavelengths: 430, 530, 560, 580, 610, 660 nm
	Photometric Accuracy: 2% full scale as measured with standard solutions
	Photometric Resolution: +/- 0.005 Abs
	New Method Upload Capability: Yes, via internal RJ45 port
	Output: IRDA (order IRIM adapter AQ37IRIM separately)
	User Interface
	Display: Graphic display
	Backlit: Yes
	Inputs: 15 button keypad
Key Functions: Numeric keys, On/Off, Up, Down, Enter, Timer, Zero, Test, Cal, Mode, Store, Shift, plus 3 Function keys	
Test methods: Preprogrammed with user prompts and feedback, user's favorites list, 10 user-defined method locations	
Automatic Range Selection: Yes	
Blank Capacity: Per method	
Datalog Points: Up to 1000, time and date stamp	
Test Reagent Formats: Powder, tablet, liquid, reagent tubes, digestion tubes. Color, Turbidity and Suspended Solids tests do not require reagents.	
Sample Required: 10mL	
Sample Cells: 24mm and 13mm diameter vials and 16mm tubes	
Software Languages: English, French, German, Spanish, Italian, Polish, Portuguese	
Auto shut down: 20 min after last key-press	
Field Case: 17 in W x 13 in L x 6 in H black case, molded and foam to secure meter, sample cells, adapters, stir rod, brush and enclosed upper section for user guide & user purchased reagent packs	
Power: 4 AA batteries (>3000 tests)	
Regulatory and Safety (CE)	
Ambient Operating Temperature: 5 to 40 °C	
Relative Humidity: 30 to 90%, Non-Condensing at 30 °C	
Certifications: CE	
Waterproof Rating: IP67	
Warranty: 2 year	

Accessories for AQ3700 Colorimeter

Cat. No.	Description
AQ3700	AQ3700 colorimeter with samples cells, adapters, stir rod, brush in 17 in W x 13 in L x 6 in H field case with enclosed upper section for user guide with test methods and powder and tablet reagent storage. Order reagents separately.
AC2V16	Replacement 16mm vials, pkg of 10
AC2V24	Replacement 24mm vials, pkg of 12
AC3SR24	Sealing ring for 24mm vial pkg of 12
AC37A16	Replacement 16mm adapter for AQ3700
AC37A13	Replacement 13mm adapter for AQ3700
AC3ROD	Tamping Stir rod, pkg of 10
AC3CBB	Cleaning Brush, pkg of 10
AC3VSK	Meter Verification Check Standards Kit
AQ37IRIM	IR Data Transfer Interface Module, with USB cable, user guide, software and batteries

AQ3700 Tests with No Reagent

Test	Description	Range
Color	AHPA True and Apparent Pt-Co	0 – 500 Pt-Co
Suspended Solids	Total Suspended Solids	0 – 750 mg/L TSS
Turbidity	Attenuated Turbidity (530nm)	0 – 1000 FAU

For more information, contact your local Thermo Scientific products dealer or call our customer and technical service experts at 1-800-225-1480 (for the US and Canada) or visit www.thermoscientific.com/water

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