

Thermo Scientific Orion COD Test Systems

COD testing correlated to BOD readings can save time and money



AQ4000 Meter

The AQ4000 and AQ3700 colorimeters support additional tests, including chlorine, nitrite and ammonia (see pages 123-125).

- Ideal for environmental and wastewater monitoring with EPA accepted methods
- Three ranges of COD reagents
- COD reactor can digest up to 25 samples simultaneously in 2 hours or less and meet fast COD temperature requirements
- Works with the new AQ3700 multiparameter colorimeter or the AQ4000 advanced colorimeter

Just add the sample to the COD vial, digest sample in the reactor and read results with your Orion colorimeter.

The AQ4000 and AQ3700 Colorimeters Offer:

- Pre-programmed methods for water quality testing
- Multiple wavelength and more test options
- Datalogging and GLP features
- Bidirectional RS232 interface on AQ4000
- IR Interface on AQ3700 (IRDA required)
- Compatibility with 13, 16 and 24 mm diameter vials
- IP67 waterproof housing
- 2 year warranty

Please visit www.thermoscientific.com/water for more product, methods information and method approval letters from EPA.

Select One Meter

Cat. No.	Description
AQ4000	Orion AQ4000 advanced colorimeter with COD
AQ3700	Orion AQ3700 colorimeter with COD, total nitrogen and total phosphate

Order Digestor

Cat. No.	Description
COD165	Orion thermoreactor for digestion methods to 165 °C

Select Your Test Reagents by Range and Quantity

Cat. No.	Range	No. of Vials	EPA Approved
CODL00	0 to 150 ppm	25	Yes
CODH00	0 to 1500 ppm	25	Yes
CODHPO	0 to 15000 ppm	25	No requirement

Select a Standard

Cat. No.	Description
CODS01	AQUAfast 1000 ppm COD standard, 475 mL
CODS10	AQUAfast 10000 ppm COD standard, 475 mL



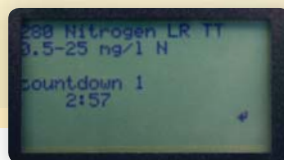
COD Reactor, Test Reagents and Standards with AQ4000 Meter



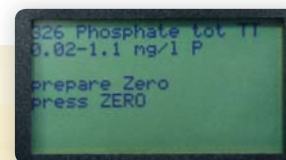
Thermo Scientific Orion Digestion Test Reagents



Orion AQ3700 Meter



Total Nitrogen LR Test



Total Phosphate Test

Tube Digestions for Nitrogen and Phosphate Nutrient Removal Process Monitoring

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 prior to the being fully treated and not over-treated. Overtreatment wastes chemicals and slows down the processing. Undertreatment can cause problems if the discharge does not meet the permit levels. Typically total nitrogen and total phosphate and other digestions were very long reflux 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 or give you timely information to correct the process.

With the AQ3700 meter, total nitrogen and total phosphate tube digestion tests are now available. The kit includes the reagents and accessories for the test.

If you are already testing COD levels, you can quickly add these important tests and start reaping the benefits!

Overview of Nitrogen and Phosphorus Methods

- Persulfate digestion for nitrogen; persulfate/ascorbic acid digestion for phosphorus
- Nitrogen tests require two tubes – one for a blank and one for the test; phosphate test needs just one tube for the blank and test
- 100 °C digestion temperature for 30 minutes and let cool about 10 more minutes for additional reagent reaction times
- Orion COD 165 digester has the temperatures needed for nitrogen and phosphate tests, see page 122

Nitrogen

Cat. No.	Description	Quantity
ACD004	Total nitrogen LR reagents (0.5 to 25 mg/L)	50 tests
ACD007	Total nitrogen HR reagents (5 to 150 mg/L)	50 tests

Phosphate

Cat. No.	Description	Quantity
ACD095	Total phosphorous reagents (0.02 to 1.1 mg/L)	50 tests