Каталог продукции OI Analytical

О компании

OI Analytical designs and manufactures instrumentation for chemical analysis. Data from our analytical instruments serve as the basis for informed decisions affecting human health and safety, environmental protection, industrial operations, and product quality.

Our company vision is Opportunity through Innovation®. We strive to provide innovative products and services that enable our customers to pursue new opportunities and tackle challenging problems in diverse fields of science and industry.

The company was first organized in 1963 and entered the analytical instrument business in 1969. On October 31, 2011 OI Analytical became a Xylem brand and operates as part of the Xylem Analytics business unit. OI Analytical is located in College Station, Texas. A second facility producing GC-based air monitoring systems and mass spectrometry instruments is based in Birmingham, Alabama. OI Analytical is an ISO-9001 certified organization that operates under a Quality Management System (QMS) to continuously improve the quality of our products, services, and business processes.

Продукция

Автоматический анализатор FS3700 OI Analytical

The Flow Solution 3700 Automated Chemistry Analyzer is an efficient, flexible, and easy-to-use tool for automated wet chemistry analysis.

Improve laboratory workflow with the FS3700 by running multiple flow methods (including SFA, FIA, iSFA, and SFIA) on different channels simultaneously. Ideal for the analysis of ammonia, chloride, cyanide, fluoride, nitrate, phenol, phosphorous, silica, TKN, and more!

FS3700 Features:

Intuitive software - FlowView™ Software streamlines operation

Fast results - Performs 30-90 analyses per hour, per channel

Versatile – Uses interchangeable, pre-assembled chemistry cartridges

Flexible – Tailors methodology with two plug-in detector modules

Accurate – Expanded Range™ photometric detector and autoscaling software eliminate off-scale samples

Analysis Module	1 or 2 chemical analysis channels per chassis
Analysis Module Dimensions	31 in. W x 17.5 in. D x 10.5 in. H 78.74 cm W x 44.45 cm D x 26.67 cm H
FS 3700 Dimensions with 90-position Autosampler	Approximately 44 in. (112 cm) W
FS 3700 Dimensions with 360-position Autosampler	Approximately 51.5 in. (131 cm) W
Injection Valve	8 or 10-port switching valve with chemically-inert wetted surfaces
Photometric Detector	420-880 nm, with PEEK path lengths of 5-, 10- or 20-mm
Amperometric Detector	Silver working electrode silver/silver chloride reference stainless steel counter electrode
In-line Heater	Included as needed, mounted underneath chemistry cartridge user programmable in 1˚C increments
UV-digestion Module	Included as needed, mounted underneath chemistry cartridge
Peristaltic Pump	24-channel, fits on top of analysis module
Autosampler	90-position, X-Y-Z (90 samples + 9 standards) 360-position, X-Y-Z (360 samples + 10 standards)
Tubing	FEP Teflon® and EVA ethylene-vinyl acetate copolymer
Manifolds / Fittings	Polysulfone
Analysis Methods / Documentation	Validated chemistries for specific analytes / sample matrices with performance data
Operating Software	FlowView
Operating System	Windows® 7, Windows® 8, 8.1 and 10

Data Collection	6 channels per instance of software Multiple instances of software can be run on a single computer
PC to FS 3700 Communications	USB
Power Supply	24VDC universal switching power supply for operation with 90-250VAC 50/60Hz source
Power Requirements	110VAC/60 Hz or 230VAC/50 Hz
Weight (Analysis Module)	19.5 kg (43 lbs.), typical for analysis module and pump, two injection valves, chemistry cartridges, detector modules
Certifications	CE Safety EN 61010-1 EMC Immunity & Emissions EN 61326-1:2006

Автоматический анализатор CNSolution 9310 OI Analytical

The CNSolution™ 9310 Online Cyanide Analyzer improves accuracy of cyanide detection in precious metal leaching solutions by offering a dynamic continuous-monitoring approach, significantly reducing operating costs.

The OI Analytical CNSolution™ 9310 Online Cyanide Analyzer is designed to measure available cyanide in precious metal leaching solutions by USEPA Method OIA-1677 and ASTM D 6888-09. The gas-diffusion amperometry technique in these methods has been demonstrated to be free of interferences from copper and metallic sulfides that impair the accuracy of traditional techniques such as titration.

CNSolution 9310 Online Cyanide Analyzers enable gold and silver mills to accurately measure and control cyanide levels at key points in the cyanidation process. Continuous online monitoring provides a dynamic view of the process rather than periodic snapshots obtained by grab sampling and laboratory analysis. Improved accuracy facilitates tighter control of cyanide usage and can significantly reduce a plant's operating costs.

CNSolution™ 9310 Features:

Provides highly accurate measurement of available cyanide in precious metal leaching solutions

Uses well proven gas-diffusion amperometry technique in Methods USEPA OIA-1677 and ASTM D 6888-09

Analyzer measurement ranges support use throughout the cyanidation process

Detector response for each sample is displayed in real-time as a peak on the touch-screen display

Continuous monitoring improves accuracy allowing more control of cyanide usage

Operating Principle	FIA by gas diffusion amperometry
Measurement Technique	Amperometric detection – silver electrode

Measurement Ranges (ppm)	0.2 to 50 / 2.0 to 500 / 20 to 2000 ppm CN
Reference Methods	USEPA OIA-1677 / ASTM D 6888-09 (Available CN)
Calibration	2 point calibration
Measurement Accuracy	+ 5% at 50-ppm
Sample Introduction	Continuous on-line fill-and-spill sampling system
Sampling Interval	User programmable
Analysis Time	<3 minutes
Operating Environment	5 – 45 °C, up to 90% humidity (non-condensing)
Operator Interface	Windows® CE-based, Color touch-screen display
Reagents Required	Water, NaOH, HCl, CN^- calibration standards
Power Requirements	$24V_{DC}$
Output Relays	2 (system alarm, sample alarm)
Analog Output	2 4-20mA (user-configurable concentration)
Data Export	To PC via Ethernet, or using USB memory stick
Instrument Enclosure	NEMA 4X / IEC Class IP-56
External Dimensions	48.3 cm H x 31.1 cm W x 31.1 cm D (19 &" H x 12.25 &" W x 12.25 &" D)
Weight	11 kg (24 lbs.)

Детектор частиц IDS 2030 OI Analytical

Use the IDS 2030 Charged Particle Detector to detect charged particles in the atmosphere or a vacuum. The rugged IDS-2030 delivers spatially-resolved answers fast.

We created the IonCCD by adding a conductive layer to a photosensitive CCD, a detector using the robust yet simple technology you trust in your smartphone and digital camera. The conductive layer blocks out photons but will respond to all particles that are carrying a charge.

The IonCCD is optimized for the detection of positive ions having a wide range of particle energies; from thermalized ions that you can find in drift tube and soft landing experiments, to accelerated ions in mobility and mass spectrometers. As a true charge detector, the signal response of the IonCCD is independent of the energy of the impacting particle, its mass, and the incident angle. The 2126 detector elements (pixels) of the IonCCD will present you with pictures of ions in unsurpassed resolution.

The IonCCD sensor comes on a ceramic substrate to reduce outgassing in vacuum applications, and is enclosed in protective aluminum housing for safe handling and easy mounting. The complete IDS 2030 includes a camera controller, the IonCCD sensor, a power supply, and cables. It is shipped in an airtight instrument case for easy storage and safe transport.

IDS 2030 Features:

True charge detector - Independent of particle energy, particle mass, and incident angle

Pressure independent charge detection – From high vacuum to above ambient pressure

Linear detector array - 2126 detector elements with a pitch of 21 µm

Low outgassing detector – Detector carrier is a ceramic PCB

Synchronization – Spectra acquisition can be synched using a trigger pulse

CE certified – FCC, RoHS, and WEEE

Size	
Controller	10.25 in L X 7.0 in W x 2.95 in H
Sensor	4.0 in L X 2.3 in W x 0.6 in H
Weight	
Controller	2.3 lbs.
Sensor	0.34 lbs.

Power for external power supply	100 - 240 VAC, 50/60 Hz, 2.0 A
Power, Internal	24 VDC
Power Consumption (max)	20 W
Power Consumption (nominal)	14 W
Operating Temperature	5 ºC - 40 ºC
Storage Temperature	5 ºC - 40 ºC
Relative Humidity	95 %
Variable Integration time	80 µs – 5.24 s
Frame time (min)	2.76 ms
Sensitivity	0.5 fA/ pixel/s with S/N =3
In frame dynamic range	5 X 10^3
External trigger	Pulse rising 0 VDC- 12 VDC; Low max. 0.6 VDC, high min. 3 VDC
Detector	
IonCCD	Linear detector array, charge-coupled device: 51 mm, 2126 active pixels each 21 µm wide and 1500 µm high. Effective area 88%.
Charge detector	Independent of pressure, particle mass and incident angle. Detects positive ions, negative ions, and electrons.
Certifications	FCC, CE, RoHS

Хроматографический датчик 5390 Tandem PID/XSD OI Analytical

Work smarter with the Model 5390 Tandem PID/XSD, which combines the power of the 4430 Photoionization Detector (PID) and the 5360 Halogen Specific Detector (XSD) to simultaneously detect halogen and aromatic compounds.

This patented tandem detector offers the production of two gas chromatograph (GC) detectors, the 4430 PID and 5360 XSD, in one efficient package. Its unique design eliminates transfer lines and uses only one detector port. The model 5390's simplified design improves reliability and performance, and reduces costs. Detectors can be used individually if desired.

5390 Tandem PID/XSD Features:

Unique design eliminates need for transfer lines and minimizes dead volume

Patented tandem detector design uses only one GC detector port

Exclusive Lampsaver™ circuit can be programmed to turn off PID lamp after a specified period to extend lamp life

High sensitivity with selective detection of halogenated compounds

Low maintenance and increased stability and reliability

Unique jet design minimizes peak tailing due to unswept dead volumes or transfer lines

Dynamic Range	$>10^5$; Linear Range > 10^4
Detectivity	<1 pg Cl/second
Selectivity	Cl:HC > 10^4
Reactor Operating Temperature	1,000 – 1,100 ˚C
Gas Requirements/ Flow Rate	Ultra high purity air (or oxygen) 10-30 mL/min
Power Requirements	90–260 V_{AC} (±10% V_{AC}) 47–63 Hz, 200W
Detector Weight	0.8 lb (0.36 kg)
Signal Output	0–1V or 0–10 V
5300 Detector Controller Dimensions	8.25” H x 5.0” W x 12” D
5300 Detector Controller Weight	8.4 lbs. (3.8 kg)

PID (Photoionization Detector) Specifications	
Dynamic Range	> 10^4
Sensitivity	<40 pg benzene
Lamp Current	0 – 1.35 mA in 9.15 mA steps
Lampsaver Time	0.5 – 2 hr, reset by external contact
Gas Requirements	He 99.999%
Power Requirements	105 – 125 V_{AC}, , 25 VA 210–240 V_{AC}, , 25 VA
Maximum PID Operating Temperature	250 ˚C
PID Volume	Approximately 50 µL
PID Lamp Power Supply Dimensions	5.75” H x 2.75” W x 9” D
Detector Weight	5.5 lb (2.7 kg)

Хроматографический датчик 4450 Tandem PID/FID OI Analytical

Experience the convenience and flexibility of the Model 4450 Tandem Photoionization Detector/Flame Ionization Detector (PID/FID): a patented combination gas chromatography (GC) detector incorporating the Model 4430 PID and Model 4410 FID.

Our dynamic duo Model 4450 Tandem PID/FID offers the goodness of two detectors packed into one convenient instrument. Together, the detectors produce simultaneous chromatograms for aromatics and aliphatics, eliminating the need for separate analysis.

Tandem PID/FID Features:

Patented design uses only one GC detector port

Tandem design acquires two simultaneous chromatograms from a single injection

Elimination of transfer lines between detectors improves peak shape and performance

System uses GC electronics or OI Analytical’s dual channel electrometer

Weight	3 kg (5.5 lb)
Patent	The 4450 Tandem PID/FID is protected under U.S. Patent number 4,804,846.

Хроматографический датчик 5350 Tandem PID/ELCD OI Analytical

Increase efficiency and save counter space with the Model 5350 Tandem Photoionization Detector/Electrolytic Conductivity Detector (PID/ELCD), a smartly designed instrument for dual detection of aromatic and halogen compounds.

The Model 5350 Tandem PID/ELCD packs in the power of two great detectors: Model 4430 PID and Model 5320 ELCD, removing the need for separate analyses of aromatic and halogen compounds. Its unique design eliminates transfer lines and uses only one detector port. Detectors can be used separately if desired. The 5350 Tandem PID/ELCD is compatible with most GC manufacturer's instruments.

Model 5350 Tandem PID/ELCD Features:

Unique tandem design eliminates transfer lines and minimizes dead volume

Tandem detector design uses only one GC detector port

Patented UV Lamp Window Sweep™ design minimizes fouling from window surface contamination

Exclusive Lampsaver™ circuit can be programmed to turn PID lamp off after a specified period to improve lamp life

ELCD incorporates quick change, disposable deionizing resin cartridge, and a simplified solvent system

Reactor design uses brass and graphite/Vespel® ferrules instead of solid graphite ferrules

Programmable solvent venting through GC timed event

Dynamic Range	> 10^6
Linear Range	> 10^6
Sensitivity	> 40 pg Benzene
Maximum Operating Temperature	250 ˚C
Lamp Current	0–1.60 mA (in 9 steps)
Lampsaver Time	0.5–2 hr, reset by external contact
Patent	The 4430 PID is protected under U.S. Patent number 4,804,846.
Gas Requirements	Helium (99.999%)
Lamp Power Supply Power Requirements	105–240 V_{AC} (±10%) 47–63 Hz

Lamp Power Supply Weight	2.5 kg (5.5 lb)
Lamp Power Supply Dimensions	5.75” H x 2.75” W x 9.0” D

5320 ELCD Specifications - Halogen Mode	
Detectable Mass	
Maximum*	1 pg lindane
Maximum	5 µg lindane
Dynamic Range	5 x 10_6
Selectivity	Cl/HC > 10^6 Cl/N > 10^5 Cl/S > 10^5
Reactor Temperature	
Range	800 – 1,100 ˚C in 100 ˚C increments
Stability	± 1 ˚C
Solvent Flow	Adjustable on the cell amplication board
Solvent Flow Range	0-200 µL/min
Solvent Vent Valve	Controlled by GC-timed event relay
Gas Requirements	H_2 (99.999%) Halogen Mode
Detector Controller Power Requirements	90–260 V_{AC} (±10%) 47-63 Hz, 200W
Detector Controller Weight	3.8 kg (8.4 lb)
Detector Controller Dimensions	8.25” H x 5.0” W x 12” D

Хроматографический датчик 4430 OI Analytical

The Model 4430 Photoionization Detector (PID) is a uniquely-designed gas chromatograph (GC) that selectively responds to aromatic and olefinic hydrocarbons in the presence of alkanes and other saturated hydrocarbons.

Our Model 4430 PID's unique patented Window Sweep™ design prevents the sample stream from contacting and contaminating the lamp window. It also allows analysis of photosensitive compounds, which would otherwise combine to form a polymer on the window surface.

PID Features:

UV-lamp Window Sweep design minimizes fouling from window surface contamination

Lampsaver™ circuit extends lamp lifetime by turning off when not in use

Direct interface to ELCD, XSD, or FID to form tandem detector systems; requires only one detector port

Detector vent for venting undesirable sample solvents

Compatible with packed and capillary columns

Custom engineered to fit specific GC models

Easy operation and maintenance

Хроматографический датчик 5320 OI Analytical

The Model 5320 Electrolytic Conductivity Detector (ELCD) excels in select detection of halogen-containing compounds, while also proving its flexibility by offering sulfur and nitrogen detection.

The Model 5320 is our third-generation ELCD. It combines three key components: a reactor assembly, cell-solvent assembly, and detector controller. Its principal mode of operation is the halogen mode (X), but sulfur (S) and nitrogen (N) modes are also available. Each detection mode kit contains all of the required materials (except the solvent) to operate the ELCD in specified mode.

ELCD Features:

Quick-change reactor design, disposable resin cartridge, and reliable solvent system

Analog-controlled reactor temperature and solvent flow

Detector base optimized for capillary columns

Solvent venting using GC timed-event relay

Direct interface with most GC makes and models

Direct interface to the OI Analytical Model 4430 PID without a transfer line; tandem design occupies only one detector port

Хроматографический датчик 5360 XSD OI Analytical

The Model 5360 XSD™ offers superior selectivity for detection of halogen-containing compounds.

Installed in the standard port of a gas chromatograph (GC), the Model 5360 XSD™ detects halogen-containing compounds eluting from the GC's capillary column. This instrument is unique in the fact that it doesn't contain radioactive sources or use organic solvents like other halogen selective detectors. This eliminates the need for catalyst tubes, solvents, resin cartridges, pumps, and transfer lines.

The 5360A XSD™ option offers a heated base assembly which provides improved baseline stability and easy column installation. Both the 5360 and 5360A models can be installed as stand-alone detectors or used in tandem with the Model 4430 Photoionization Detector (PID).

XSD™ Features:

High halogen selectivity vs. hydrocarbon simplifies analyses and minimizes (or eliminates) the need for sample preparation

High detector sensitivity permits very low-level selective analysis of halogen-containing (Cl, Br, F) compounds

Unique jet design minimizes peak tailing due to unswept dead volumes

Requires only air to operate

Designed to operate on most GC makes and models

No routine maintenance required

Enhanced venting option diverts solvent before entry to the reactor

Dynamic Range	$>10^5$
Linear Range	$>10^4$
Detectivity	<1 pg Cl/second
Selectivity	Cl:HC > 10^4
Reactor Operating Temperature	900-1100 ˚C in 100 ˚C increments
Flow Rate	20-30 mL/min air

Communications Signal Output	0-1 V or 1-10V
Gas Requirements	Air 20-30 mL/min (ultrahigh purity)
Power Requirements	90-260 (±10%) V_{AC}, 47-63 Hz, 200W
Controller Dimensions	21.2 cm H x 12.8 cm W x 30.8 cm D (8.25” H x 5.0” W x 12.0”D
Weight	3 kg (5.5 lb)
Controller	3.8 kg (8.4 lbs)
Detector	0.36 kg (0.8 lbs)

Хроматографический датчик 5383 OI Analytical

The Model 5383 Pulsed Flame Photometric Detector (PFPD) uses superior sensitivity and increased selectivity to easily and accurately analyze sulfur, phosphorus, and 26 other elements.

The superior sensitivity of the 5383 PFPD makes it the instrument of choice for the analysis of sulfur, phosphorus, and other elements. Its linear, equimolar response to sulfur allows selective measurement of individual sulfur species from low ppb to ppm levels, and total sulfur as the sum of individual peaks. The unique capability to obtain simultaneous sulfur and hydrocarbon chromatograms from a single PFPD detector sets it apart from other sulfur detection technologies.

Widely used in laboratory and process gas chromatographs to analyze sulfur species and total sulfur levels in liquid-phase petrochemicals, you will also find the Model 5383 hard at work analyzing organophosphorus pesticides, pharmaceuticals, flavor and fragrances, beverage-grade CO_2, chemical warfare agents, and more.

Model 5383 PFPD Features

Linear, equimolar response for quick, easy calibrations

Simultaneous mutually selective chromatograms (e.g., S+C, or S+P)

Self-cleaning design eliminates soot formation, or “coking”

New, modular design with separate electronics and flow modules

Better long-term stability and less maintenance than other S-selective detectors, such as SCD/XRF – Uses less gas than SCDs

Sulfur	<1 pg S/sec
Phosphorus	<100 fg P/sec

Пробоотборник 4551A OI Analytical

Improve sample accuracy and save lab counter space with the Model 4551A Water Autosampler. Designed to work with our 4760 Eclipse Purge-and-Trap Autosampler, the 4551A automates VOC analysis for up to 51 clean or lightly particulated water samples.

The extremely compact 4551A Water Autosampler fits strategically under the 4760 Eclipse to save bench space. The instrument precisely transfers water samples from standard 40-mL volatile organic analysis (VOA) vials to the sparge vessel of the 4760 Eclipse for purging. A removable spiral autosampler tray holds 51 sample vials for fully-automated operation. Our optional LV-20 Standards Addition Module adds internal standards, surrogate or matrix spike standards, and reduce the volume of standards used.

Principle applications include: drinking water, wastewater, pharmaceutical, 16+ USEPA-approved methods, VPH and GRO, THMs, BTEX, Geosmin and 2-MIB.

Model 4551 Features:

Automated VOC Analysis of up to 51 water samples

Compact! Fits directly under the 4760 Eclipse Sample Concentrator

Transfers water samples with light particulates (<100 µm) without clogging the system

LV-20 Standards Addition Module (optional) automates addition of internal or surrogate standards

Program multiple rinses and blanks for maximum sequence flexibility

Decrease maintenance downtime and costs – no XYZ arm

Peristaltic pump and sample loop eliminate slow syringe drives

Fastest VOC autosampler available

4551A	46 cm H x 40 cm W x 42.6 cm D (18.11 in H x 15.75 in W x 16.77 in D)
4551A and Eclipse	94.9 cm H x 40 cm W x 42.6 cm D (37.36 in H x 15.75 in W x 16.77 in D)
Depth with Cover	53 cm (20.86 in)
Weight	
4551A	16.3 kg (36 lb)

Weight	
4551A and Eclipse	32.6 kg (72 lb)

Sample Loop	
5 mL	Glass loop (standard)
Valve	Six-port electrically actuated, 12 V_{DC}, Valco® Cheminert®

Sample Transfer Pathway	
Sampling Needle	7", two-hole, stainless steel
PEEK® Tubing	1/16" O.D. x 0.040" I.D. x 17"
Nickel Tubing	1/16" O.D. x 0.040" I.D. x 26"

Certifications	
CE	
EMC:	Directive 89/336/EEC:1989 EN50082-1:1992 CISPR 11:1990/EN55011 (1991) Group 1 Class A IEC 801-2/EN61000-4-2 IEC 801-3/EN61000-4-3 IEC 801-4/EN61000-4-4
Warranty	12 months parts and labor

Sample Transfer	
Accuracy	Better than ±0.3%

Power Requirements

Voltage	100-230 VAC±10% (autoselecting)
Frequency	50/60 Hz
Gas Requirements	
Purity	99.999% (UHP) He or N_2
Pressure	50-125 psi
Water Supply	Clean water free of VOCs for rinsing the sample pathway and running blanks

Пробоотборник 4100 OI Analytical

Improve sample processing reliability and analytical performance with the Model 4100 Water/Soil Sample Processor. This automated instrument is efficiently built to process up to 100 drinking water, wastewater, or soil samples.

Say goodbye to handling and processing samples for purge-and-trap analysis of volatile organic compounds (VOCs). The 4100 Sample Processor is designed to operate with (single or dual) Eclipse 4760 purge-and-trap sample concentrators. You can trust the VOA Constrictor™ vial gripper technology to carefully handle samples, while high-speed injection valves improve the precision of standard addition, reduces the volume of standards used, and decreases laboratory operating costs.

Model 4100 Features:

Holds 100 samples in two 50-position vial racks

Operates with one or two Eclipse 4760 purge-and-trap instruments

Vial cooling option keeps vials at 10 °C or less in accordance with USEPA Method 524.3

VOA Constrictor™ vial gripper has built-in vial sensor

Standard Addition Module has two 3-mL reservoirs, expendable to four 3-mL reservoirs

High-speed injection valves in Standard Addition Module inject programmed volume with no excess or waste

VOA View Windows®-based software offers an intuitive user interface with a real-time view of sampling progress

Purge-and-Trap Compatibility	Operates with one or two Eclipse 4660 instruments
Sample Capacity	100 standard USEPA 40-mL VOA Vials
Sample Loop	5mL standard loop, 10 or 25 mL loops optional

Automated Standard Addition	(2) 3mL reservoirs standard, expansion to (4) optional
Sampling Mode – Water	Aspiration and transfer to purge-and-trap instrument sparge vessel
Sampling Mode – Soil	In-vial needle sparging and transfer to trap of purgeand-trap instrumen
Sample Transfer Pathway – Water Samples	Silcosteel® 316L stainless steel and PEEK®
Sample Transfer Pathway – Soil Samples	Silcosteel® 316L stainless steel and PEEK®
Blank Water Transfer	PFA–Teflon®
Vial Trays	(2) 50-position VOA vial trays
Vial Gripper Mechanism	Pneumatically actuated cylindrical gripper with vial sensing
Vial Cooling Option	Cooling base for two 50-position vial trays with quickdisconnect fittings recirculating chiller
X/Y-Axis Mechanism	Digitally controlled linear drive rails
Z-Axis Mechanism	Pneumatically actuated
Operating Software	VOA View Windows®-based GUI
Operating System	Windows® 7or Windows® 8 and 8.1
PC to 4100 Communications	USB port for each 4100 instrument connected to PC
Water Supply	Clean, VOC-free water for rinsing sample pathway
Gas Requirements - Sample Transfer	99.999% (UHP Grade) He or N_2
Gas Requirements - Gripper / Z-axis Actuator	Nitrogen
Power Requirements	110VAC / 60HZ or 230VAC / 50Hz

Dimensions	27 in. W x 24 in. D x 21.5 in. H 68.6 cm W x 61 cm D x 54.6 cm H
Weight	36 Kg (80 lbs) , typical depending on options
Certifications	CE Safety and EMC EN50082-1/EN55011 Group 1 Class A

Концентратор образцов 4760 OI Analytical

The 4760 Eclipse Purge-and-Trap Sample Concentrator uses a slim-line design and intuitive user interface to analyze volatile organic compounds (VOCs) quicker and more efficiently. Use to effectively monitor drinking water, wastewater, groundwater, storm water and more!

The Model 4760 combines our 30+ years of VOC experience in one highly-productive instrument. Users can expect faster cycle times, higher sample throughput, and exceptional reliability. The purge-and-trap technique involves multiple complex processing steps. Patented components of the 4760 Eclipse remove uncertainty, improving instrument operation, accuracy, and overall analytical performance. Use in conjunction with our Model 4100 Water/Soil Sample Processor or Model 4551A Autosampler to further increase sample throughput and lab productivity.

Model 4760 Features:

Run more samples in less time and maximize laboratory throughput and profitability

See system status instantly at a glance with TruColor™ LED indicator

Patented Cyclone Water Management™ system removes >96% of water during the thermal desorb step allowing analysis of polar compounds and minimizing water transfer to the GC column

Intuitive, simplified user-interface and Trap View™ software

Heats sparger during bake to reduce carryover

Patented technologies for foam sensing and purge abort to prevent system contamination

Sparge Overfill Sensor (SOS™) prevents overfilling of the sparge vessel and system flooding

Patented Infra-Sparge™ Sample Heater ensures consistent sparge vessel temperature conditions for improved compound recoveries and %RSDs

Direct resistance heating of the trap at >1,000 °C/min eliminates the need for a trap preheating step and decreases overall purge and trap cycle time

Dimensions	48.9 cm H x 18.4 cm W x 45.76 cm D (19.25” H x 7.25” W x 18” D)
Weight	16.3 kg (36 lbs)

Power requirements	115 VAC ±10%; 50/60 Hz; 230 VAC ±10%; 50/60 Hz; 750 VA maximum
Gas requirements	99.999% (UHP Grade) He or N_2 purge gas

Software	
Operating system	Windows® 7, 8, and 10
Operator interface	Windows-based graphical user interface
Available languages	English

Safety/EMI Certifications	
Safety	LVD 2006/95/EC EN61010-1:2010 3rd
EMC	Directive 2004/108/EC EN61326-1:2013 CISPR 11:2009 and A1:2010
RoHS	Directive 2011/65/EU

Patents	US 5,250,093 5,261,937 5,337,619 6,894,784B2

Модуль LV-20 OI Analytical

The LV-20 Standards Addition Module pairs with our Model 4551A Autosampler to improve accuracy and precision of GC-GC-MS analyses, while minimizing standard usage and decreasing laboratory costs of expensive standards.

Designed as an option for the 4551A Autosampler, the LV-20 Standards Addition Module injects programmed volumes (1, 2, 5, 10, or 20 µL) of internal standard, surrogate, or matrix spike standards to improve the accuracy and precision of GC-GC-MS analyses. The LV-20 is equipped with high-speed injection valves which inject user-programmed volumes of standard with no excess overfill volume that fixed-loop based systems require to operate. All LV-20 functions are programmed using the intuitive touchscreen and Windows® CE software on the Eclipse 4760 Purge-and-Trap Sample Concentrator.

Consider using the LV-20 for these applications: GC and GC-MS analysis of volatile compounds (VOCs), drinking water, wastewater, groundwater, storm water, volatile petroleum hydrocarbons (VPH), oxygenates, 17+ USEPA-approved methods, ASTM and standard methods, and VPH and GRO Methods.

LV-20 Features:

Automatically adds internal standards, surrogate, or matrix spike standards at operator-defined intervals

Significantly reduces the volume of standards used in GC-MS analysis

Amber glass reservoirs protect standards from UV light degradation

Mounts directly on top of a 4551A Autosampler

Dry erase panel for noting active standards on the instrument

Instrument Compatibility	Mounts on 4551A Autosampler and communicates with OI Analytical 4660 Purge-and-Trap Sample Concentrator
Reservoir Capacity	Two 3-mL amber glass reservoirs
Standard Injection	Programmable from touchscreen of 4660 Purge-and-Trap or PC interface
Injection Volume	0, 1, 2, 5, 10, or 20 µL from either reservoir or both
Precision	< 3% RSD
Power	Supplied by 4551A Autosampler
Communications	RJ12 cable (supplied)
Gas Requirements	He or N_2 (high purity)
Gas Pressure	6 – 10 psi
Maximum Pressure	125 psi
Operating Temperature	10 - 40 ˚ C
Materials of Construction	
Manifold	PEEK
Reservoirs	Borosilicate glass

Transfer Tubing	Fluoropolymer
LV-20 Dimensions	7.4” H x 5.0” W x 9.0” D 18.9 cm H x 12.8 cm W x 23.0 cm D
Weight	2.04 kg (4.5 lbs)

Система для анализа BTEX OI Analytical

OI Analytical’s BTEX Analysis System is the total package for analyzing Benzene, Toluene, EthylBenzene, and Xylenes (BTEX) in water, soil, and solids based on USEPA methods.

Our BTEX Analysis System offers preconfigured systems to simplify and customize instrumentation to provide complete GC-based solutions. A powerful lineup of instruments working together ensures reliable analyses of even the most challenging analytical problem. The BTEX Analysis System product lineup includes: Agilent GC, OI Analytical Model 4760 Purge-and-Trap Sample Concentrator, Model 4450 Tandem PID/FID, columns, and standards.

Principal applications for the System VPH include: Massachusetts Volatile Petroleum Hydrocarbon (VPH) method; benzene, toluene, ethylbenzene, xylenes, and other aromatics (BTEX); USEPA Methods 602, 8015, and 8020; GRO and DRO; leaking underground storage tank monitoring; fuel spills in soils; combined total leachate program; fuels in water (wastewater); ISO 15009 and 15680; and standard methods 6200C.

BTEX Analysis System Features:

Standard system package includes all necessary hardware for analysis: Agilent GC, OI Analytical Model 4760 Purge-and-Trap Sample Concentrator, Model 4450 Tandem PID/FID, columns, and standards

Sample Concentrator provides built-in Cyclone Water Management, rapid trap heating and cooling, Silcosteel sample pathway, unique protective sparge filter design, and optional Infra-Sparge Sample Heater for improving sample recoveries

Uses the Tandem PID/FID for excellent sensitivity and linearity

PID hidden-window design prevents lamp fouling

Third detector capability offers additional analyses

Choice of capillary columns

Choice of autosamplers available for automated analysis

Optional automated pH measurement

Includes installation and startup using appropriate standards or methods in systems delivered in the U.S.

Standard System VPH and System BTEX Hardware	Eclipse Purge-and-Trap Sample Concentrator Model 4450 Tandem PID/FID detector system Agilent GC

	OI Analytical low-dead-volume injector or Agilent split/splitless injector Method-appropriate GC capillary column

Performance Specifications	
Minimum Detectable Mass	
PID	<40 pg benzene
FID	5 pg carbon/second propane
Dynamic Range	
PID	$>10^6$
FID	±10% over a 10^6 range
Communications Interface	Ethernet/LAN connection to the sample concentrator and GC
Detector Output	1V full-scale analog voltage

Requirements	
Power Requirements	110 VAC (±10%), 60 Hz 220 VAC (±10%), 50 Hz
Benchspace Requirements	109.2 linear cm (43 inches) for a standard system
Gas Requirements	Ultrahigh purity H_2 , and He (99.999% purity or better)

Система для анализа FBA 5320 OI Analytical

Accurately quantify total fluorinated contaminants in the low parts-per-million (ppm) range in liquid propane or liquid butane process stream samples with OI Analytical's FBA 5320.

The OI Analytical FBA 5320 is a laboratory fluorinated by-products analyzer (FBA) designed to quantify total fluorinated contaminants in samples from liquid propane or liquid butane process streams. The analyzer is based on an Agilent 7890 gas chromatograph (GC) equipped with an automated liquid sampling valve for sample introduction, a packed-inlet injection port, a stainless steel column, and

5320 Electrolytic Conductivity Detector (ELCD) configured for fluoride detection. The FBA 5320 accurately detects total fluoride concentrations in the low parts-per-million (ppm) range.

Operating Principle	Fluorinated compounds eluting from a GC column are catalytically reduced in a high temperature micro-reactor and converted to HF gas. The HF gas dissolves in a deionized solvent increasing the electrolytic conductivity of the mixture. The change in conductivity is directly proportional to the mass of fluoride in the sample.
Measurement Technique	Electrolytic Conductivity Detector (ELCD)
ELCD Reaction Gas	Hydrogen 100mL / minute
ELCD Reactor Temperature	Range: 800-1100 °C in 100 °C increments Operation: 900 °C (Stability: + 1 °C)
ELCD Dynamic Range	5×10^5
FBA 5320 Range	0.02-100 +ppm
Selectivity for Fluoride	Fluoride / Hydrocarbon > 10^6 (Other halogens will respond)
Detector Output	0-1 V or 0-10 V full scale analog voltage
Gas Chromatograph (GC)	Agilent 7890 GC equipped with OI Analytical 5320 ELCD detector. Gases EPC flow controlled.
GC Dimensions	49cm H x 58.4cm W x 53.3cm D
GC Weight	50 kg (110.5 lbs.)
GC Column	54.8 feet long x 1/16 inch O.D. Stainless Steel
Carrier Gas	Helium 8 - 12 mL / minute
Liquid Sampling Valve	Air actuated

Sample Volume	2-µL
ELCD Controller Dimensions	21cm H x 12.7cm W x 30.5cm D
ELCD Controller Weight	3.8 kg (8.4 lbs.)
Gas Requirements	Hydrogen, ultrahight purity > 99.999% Helium, ultrahigh purity > 99.999%
Power Requirements	90-260 VAC (+ 10%), 47-63 Hz, 200W (Surge-protected power supply required)

Система для анализа VOC OI Analytical

Save hours of searching for GC-based solutions with OI Analytical's preconfigured systems for analysis of Volatile Organic Compounds (VOCs) in water, soil, and solids based on USEPA methods. Use our expertise to customize an instrument that will meet your laboratory needs.

The System VOC is the complete GC package, incorporating our new 4760 Eclipse Purge-and-Trap Sample Concentrator, Low-Dead-Volume Injector, Agilent® Technologies 6890 GC, and your choice of our optional autosamplers. The System VOC is also configured with a tandem PID/ELCD for analyzing halogenated and aromatic species found in USEPA Methods 601/602 and 502.2

Principal applications for the System VOC include: USEPA Methods 502.2, 503.1, 601, 602, 8010, and 8021; ISO 15009 and 15680; standard methods 6200C; halocarbons; aromatics and olefins; solvents; and hazardous wastes.

VOC Analysis System Features:

Preconfigured packages include all necessary hardware for analysis: Agilent GC, OI Analytical Model 4760 Purge-and-Trap Sample Concentrator, Model 5350 Tandem PID/ELCD, columns, and standards

Sample Concentrator provides built-in Cyclone Water Management, rapid trap heating and cooling, Silcosteel sample pathway, unique protective sparge filter design, and optional Infra-Sparge Sample Heater for improving sample recoveries

Tandem PID/ELCD uses only one detector port, allows mounting of up to four detectors

ELCD features rapid release reactor design, quick-change disposable resin cartridges, and digital control

PID exhibits extremely low baseline noise

MS systems include current Agilent GC/MS hardware with a 6890 Plus GC

Choice of capillary columns

Choice of autosamplers to fully automate the analysis process

Optional automated pH measurement

Includes installation and startup using appropriate standards or methods for systems delivered in the U.S.

Standard System VOC Hardware	Eclipse Purge-and-Trap Sample Concentrator Model 5350 Tandem PID/ELCD System Agilent GC OI Analytical low-dead-volume injector

Performance **Specifications**	
Trap	>1,000 °C/minute heating rate to 300 °C; 450 °C maximum >240 °C/minute cooling rate (200 °C to 30 °C in <50 sec)
Water Management	Water removal at level equivalent to condensation at 4.8 °C Eliminates all but ~0.25 µL (0.063 µL/minute) of trapped desorb water (>96% water removed) Operates at ambient temperature
ELCD	
Minimum Detectable Mass	Halogen: 1 pg lindane
Maximum Detectable Mass	Halogen: 5 µg lindane
PID	
Dynamic Range	Greater than 10^6
Sensitivity	<40 picograms benzene
Communication Interface	Ethernet/LAN connection to the sample concentrator
Detector Output	1V full-scale analog voltage

Requirements	
Power Requirements	115 VAC (±10%), 60 Hz 230 VAC (±10%), 50 Hz

Requirements	
Benchspace Requirements	105.4 linear cm (41.5 inches) for total basic system
Gas Requirements	Ultrahigh purity H2 , and He (99.999% purity or better)

Система для анализа VPH OI Analytical

Our VPH Analysis System is GC made easy. Use one of our preconfigured systems for analysis of volatile petroleum hydrocarbons (VPH) in water, soil, and solids based on the Massachusetts VPH and similar methods. Customize your system for specific applications with our expanding line of GC detectors, sample introduction instruments, and autosampler.

The System VPH is a complete package tailored to measure aromatic and aliphatic hydrocarbons in environmental samples using the Massachusetts VPH and similar methods. This system can also be customized for analyzing BTEX and other aromatic compounds, volatile gasoline range organics (GRO), and volatile diesel range organics (DRO). The System VPH and System BTEX are identical to the System VOC but are customized for analyzing aromatics and aliphatics by using the tandem PID/FID detector combination. The PID and FID detectors installed in series using OI Analytical's patented tandem configuration generate simultaneous aliphatic and aromatic chromatograms in a single analysis. The PID/FID is the required detector for many regulatory methods such as USEPA Method 8015, Massachusetts VPH, and many GRO methods. Like the System VOC, many used methods in the world specify PID/ FID tandem detectors for VOC methods.

Principal applications for the System VPH include: Massachusetts Volatile Petroleum Hydrocarbon (VPH) method; benzene, toluene, ethylbenzene, xylenes, and other aromatics (BTEX); USEPA Methods 602, 8015, and 8020; GRO and DRO; leaking underground storage tank monitoring; fuel spills in soils; combined total leachate program; fuels in water (wastewater); ISO 15009 and 15680; and standard methods 6200C.

VPH Analysis System Features:

Standard system package includes all necessary hardware for analysis: Agilent GC, OI Analytical Model 4760 Purge-and-Trap Sample Concentrator, Model 4450 Tandem PID/FID, columns, and standards

Sample Concentrator provides built-in Cyclone Water Management, rapid trap heating and cooling, Silcosteel sample pathway, unique protective sparge filter design, and optional Infra-Sparge Sample Heater for improving sample recoveries

Uses the Tandem PID/FID for excellent sensitivity and linearity

PID hidden-window design prevents lamp fouling

Third detector capability offers additional analyses

Choice of capillary columns

Choice of autosamplers available for automated analysis

Optional automated pH measurement

Includes installation and startup using appropriate standards or methods in systems delivered in the U.S.

Standard System VPH and System BTEX Hardware	Eclipse Purge-and-Trap Sample Concentrator Model 4450 Tandem PID/FID detector system Agilent GC OI Analytical low-dead-volume injector or Agilent split/splitless injector Method-appropriate GC capillary column

Performance Specifications	
Minimum Detectable Mass	
PID	<40 pg benzene
FID	5 pg carbon/second propane
Dynamic Range	
PID	$>10^6$
FID	±10% over a 10^6 range
Communications Interface	Ethernet/LAN connection to the sample concentrator and GC
Detector Output	1V full-scale analog voltage

Requirements	
Power Requirements	110 VAC (±10%), 60 Hz 220 VAC (±10%), 50 Hz
Benchspace Requirements	109.2 linear cm (43 inches) for a standard system
Gas Requirements	Ultrahigh purity H_2, and He (99.999% purity or better)

Система для анализа S-PRO 3200 OI Analytical

OI Analytical's S-PRO 3200 is a complete turn-key system for sulfur analysis in gas-phase samples. Designed to work with our new, patented 5383 Pulsed Flame Photometric Detector (PFPD), the S-PRO 3200 is a powerful analytical tool capable of obtaining simultaneous sulfur and hydrocarbon chromatograms from a single detector.

The S-PRO 3200 is a custom-configured gas chromatograph for selective, high-sensitivity measurement of sulfur compounds in gas-phase samples and Liquified Petroleum Gas (LPG) streams (such as propylene and ethylene).

The key technology within the S-PRO is the 5383 PFPD, which has a linear equimolar response to sulfur allowing selective measurement of individual sulfur species from low ppb to ppm levels, and total sulfur as the sum of individual peaks.

We have integrated a number of special design features into the System's GC platform, the Agilent 7890 GC System, to provide unique analytical and performance capabilities. Platform features include:

Permeation Oven

Accommodates up to 5 permeation devices

Pure sulfur compound diffuses across a permeable Teflon® barrier at a temperature-dependent rate

Precise oven temperature control produces a constant diffusion rate

Controlled, measured flow of dilution gas creates an accurate gas standard for calibration

Agilent 7890B keypad- or ChemStation-controlled temperature and dilution gas flow

Automated Injection System

4-port sample selection valve enables sample selection from a gas stream, or to deliver calibration and check standards from the permeation oven

6-port gas-phase switching valve with sample loop injects samples through the Volatiles Interface into the GC column

Sulfur Detection – PFPD

Superior sensitivity and increased selectivity compared to conventional FPDs

Better long-term stability and less maintenance than SCD or XRF

Quick, easy calibrations

Self-cleaning design

Volatiles Interface

Optimized for ultralow dead volume flow rates, inertness, and ease of column installation

The S-PRO 3200 System is ideal for using in demanding sulfur analysis applications, such as:

Sulfur content in LPG

COS in ethylene and propylene feedstock

Sulfur in natural gas

Impurities in beverage grade CO_2

Semiconductor and industrial gas purity

Quality control in gas production and blending operations

S-PRO 3200 Features:

Provides automated sample injection, calibration, and QA/QC

Integrated permeation oven provides single or multiple calibration or QC standards

Automated injection of calibration or check samples provided by the built-in valving and permeation system eliminates using unstable, expensive sulfur gas standards

OI Volatiles Interface, optimized for valve injection, provides low dead volume split or splitless injection for a wide dynamic range

Sulfinert™-treated sample pathway minimizes absorptive surfaces for optimal performance, particularly for low sulfur concentrations

Proven PFPD detector provides stability, sensitivity, selectivity, equimolar sulfur response, calibrations in linear or quadratic modes, and multi-element detection capability

Single-digit ppb sensitivity for sulfur analysis

Full EPC control of all injector, permeation oven, and detector gases

Using additional or alternative detectors (PID, ELCD, XSD, or tandem configurations) allows the analysis of other compounds of interest

Detectivity	Sulfur < 1 pg S/second
Selectivity	At optimum detectivity levels: Sulfur > 10^6 S/C
Permeation Oven	Temperature range: 30 - 75 ˚C+ 0.05 ˚C
OI Volatiles Interface	Effective split range: Splitless to 150-to-1, Maximum Temperature: 325 ˚C
GC Column	GS-GasPro, 30-meter x 0.32 mm I.D. Maximum Temperature: 260 ˚C

Система для анализа пестицидов OI Analytical

Pesticide analysis bugging you? OI Analytical's Pesticide Analysis System offers versatile and customized detection solutions in food and environmental samples.

Our in-house experts have more than 16 years' experience in comprehensive pesticide analysis, and our top-of-the-line pesticide analysis instrumentation proves it. From evaporation systems to concentrate sample extracts, to Pesticide Analysis Systems to selectively detect organochlorine, organophosphorus, or organosulfur pesticides, our team has a solution for you.

Pesticide Analysis Features:

Choice of detectors for organochlorine and organophosphorus pesticides (ELCD, XSD™, PFPD)

Preconfigured packages include all necessary hardware for analysis

Includes electronic flow control on all injectors and detectors

Fully integrated for easy use and accuracy of results

Customized systems available for specific application requirements

ELCD converts between nitrogen or sulfur mode

Systems include installation and startup using appropriate standards or methods

Available with our Model 5320 ELCD, Model 5360 XSD™, or Model 5383 PFPD for phosphorous- and sulfur-containing pesticides

TOC анализатор 1088 OI Analytical

Have an Aurora 1030 TOC Analyzer? Meet its 'right-hand man' and your new favorite sampler instrument: the Model 1088 Rotary Autosampler, a brilliant tool that expedites analysis and ensures accuracy through automation.

Make your analyses simple, quick, and accurate with our Model 1088 Rotary Autosampler. Specifically designed to work with all Aurora 1030 TOC Analyzer models (1030W, 1030C, and 1030S), this gem fits conveniently under the TOC analyzer. A removable 88-position autosampler tray loads the sample vials for fully-automated operation.

The 1088 supports a number of special functions to address a range of sample conditions and analysis requirements. Onboard magnetic stirring ensures samples containing insoluble components or particles are homogeneous for sampling and accurate analysis. Septum piercing provides closed vial sampling to prevent contamination of the sample. System configuration for sample pretreatment allows pre-acidification and purging of samples within the 1088 prior to sampling. This technique removes the total inorganic carbon (TIC) content of samples, reducing the analysis time required for TOC measurements. A user-programmable number of rinses are used to clean the sample needle before the next vial is sampled.

Model 1088 Features:

Automatically process up to 88 samples

Configurable for pre-acidification and sparging of sample TIC content within the autosampler to reduce TOC analysis time

Integrated wash station performs programmable rinse steps to clean the sampling needle and prevent cross-contamination

Magnetic stirring ensures insoluble and particulated samples are homogeneous for accurate results

Compact! Fits directly under the Aurora 1030 TOC Analyzer

Supports sampling from open vials and septum piercing of sealed vials

Large color touchscreen interface

Dimensions	
1088 Autosampler	67.77 cm H x 38.1 cm W x 48.26 cm D (25.5 in H x 15 in W x 19 in D)
1088 Autosampler and Aurora 1030	66 cm H x 47 cm W x 66 cm D (26 in H x 18.5 in W x 26 in D)
Weight	
1088 Autosampler	19 kg (42 lbs)
1088 Autosampler and Aurora 1030	34.4 kg (76 lbs)
Power Requirements	100-230 VAC ±10%; 50/60 Hz; 150 W (max)
Environment	15 - 35 °C operating temperature 10 -90% relative humidity
Sample Capacity	88 vials
Sampling Needle	8.4 in, two-hole, stainless steel
Sample Transfer Tubing	0.045" I.D. x 1/8" O.D. Teflon® tubing
Vials	40-mL VOA vials
Caps	Open-hole caps
Septa	TFE-faced septa
Sample Transfer Volume Range	10 µL - 10 mL
Particulate Handling	Up to 500 µm
Special Functions	Onboard magnetic stirring Septum piercing Sample pretreatment for TIC removal

Certifications	CE
Communications	RS-485 (Aurora 1030 analyzer to 1088 Autosampler)
Warranty	12 months parts and labor

Have an Aurora 1030 TOC Analyzer? Meet its ‘right-hand man’ and your new favorite sampler instrument: the Model 1088 Rotary Autosampler, a brilliant tool that expedites analysis and ensures accuracy through automation.

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1088 Autosampler	19 kg (42 lbs)
1088 Autosampler and Aurora 1030	34.4 kg (76 lbs)
Power Requirements	100-230 VAC ±10%; 50/60 Hz; 150 W (max)
Environment	15 - 35 °C operating temperature 10 -90% relative humidity
Sample Capacity	88 vials
Sampling Needle	8.4 in, two-hole, stainless steel
Sample Transfer Tubing	0.045" I.D. x 1/8" O.D. Teflon® tubing
Vials	40-mL VOA vials
Caps	Open-hole caps
Septa	TFE-faced septa
Sample Transfer Volume Range	10 µL - 10 mL
Particulate Handling	Up to 500 µm
Special Functions	Onboard magnetic stirring Septum piercing Sample pretreatment for TIC removal
Certifications	CE
Communications	RS-485 (Aurora 1030 analyzer to 1088 Autosampler)
Warranty	12 months parts and labor

TOC анализатор 9210e OI Analytical

Based off the Total Organic Carbon Analyzer (TOCA) used by NASA in 2008 to recycle water in the space station, the 9210e TOC Analyzer was specifically engineered to quickly, efficiently, and remotely monitor water quality in process environments using electrochemical oxidation.

The 9210e Online TOC Analyzer is specifically engineered for operation in process environments. Instrument calibration is accomplished in minutes using a simple protocol. 9210e TOC analyzers maintain excellent long-term calibration stability providing accurate and dependable data with minimal maintenance. Its “reagentless” electrochemical oxidation technique continuously monitors the total organic carbon level in process water streams allowing for rapid adjustment of the treatment process to more precisely control coagulation, flocculation, and formation of disinfection by-products, helping facilities stay in compliance and reduce costs.

9210e Features:

Continuous, real-time TOC monitoring

Employs state-of-the-art electrochemical oxidation technology

Maintains excellent long-term calibration stability, providing accurate and dependable data with minimal maintenance

Simple – A large, touchscreen display, paired with an easy-to-use interface, simplifies set-up and access to data, trending, and diagnostic screens

Operating Principle	Electrochemical oxidation
Measurement Technique	Non-dispersive infrared (NDIR) detection
Measurement Ranges (ppm)	0.100 to 25-ppm carbon
Calibration	2 point (KHP two standards)
Measurement Accuracy	+10%
Sample Introduction	Continuous Online or Manual Sipper Mode
Sample Processing / Analysis Time	5 to 10 minute intervals
Operating Environment	5 – 45 °C, up to 90% humidity (non-condensing)
Operator Interface	Windows® CE-based, color touchscreen display
Reagents Required	Phosphoric acid for TIC removal

Gas Requirements	< 200 mL/min. 99.99% N_2 or CO_2-free air
Power Requirements	$24V_{DC}$ (Optional $24V_{DC}$ power supply allows operation with 90-$250V_{AC}$50/60Hz source)
Input Relays	2 (remote start, remote stop)
Output Relays	2 (system alarm, sample alarm)
Analog Outputs	2 4-20mA (User-configurable concentrations)
Data Export	To PC via Ethernet, or using a USB memory stick (Microsoft® Excel®-ready .csv file format)
Instrument Enclosure	NEMA 4X / IEC Class IP-56
External Dimensions	48.3 cm H x 31.1 cm W x 31.1 cm D (19 in H x 12.25 in W x 12.25 in D)
Weight	11 kg (24 lbs)
Certifications	CE, EMC EN50082-1, and EN 55011 Group 1 Class A

Модуль 1030C TNb OI Analytical

Take your analysis to the next level with the Aurora 1030C TN_b Module. As an add-on option to the Aurora 1030C TOC Analyzer, the TN_b module allows for simultaneous analysis of total bound nitrogen concentrations in aqueous samples. It's a smarter, safer, and more efficient solution to total nitrogen analysis.

Move over Total Kjeldahl Nitrogen (TKN) testing. There's a new total nitrogen analyzer in town, and it draws a quick analysis time of 10-15 minutes…

The Aurora 1030C TN_b Module measures the total bound nitrogen (TN_b) content of water samples to provide an indication of the amount of pollutants present in those samples. Total bound nitrogen consists of dissolved ammonia, nitrates, nitrites, amines, and other nitrogen-containing compounds.

The TN_b analysis module is an optional accessory for the Aurora 1030C TOC analyzer that allows measurement of total bound (inorganic and organic) nitrogen (excluding N_2) concentrations in aqueous samples. Total nitrogen can be measured simultaneously during NPOC and TC analysis or as a separate function when operated in the TN_b analysis mode.

Principal applications include: drinking water, wastewater, sewage effluent, agricultural runoff, and surface water. Methods used include: EN-12260 and DIN-ISO 11905-2.

Aurora 1030C TN_b Module Features:

Direct measurement of Total Nitrogen (TN_b) concentration in aqueous samples

Faster analysis time than Total Kjeldahl Nitrogen (TKN) testing (10–15 minutes versus 2–3 hours)

High temperature combustion used in the Aurora TN_b is more effective for difficult sample matrices such as brines and particulates

Eliminates labor and hazardous chemical exposure associated with TKN digestion

TN_b module mounts onto the Aurora 1030C TOC Analyzer, requiring no additional lab benchspace

TN_b Analysis Module	Factory installation or in-field upgrade
Analysis Mode	Simultaneous with NPOC and TC analysis or independent TN_b analysis
Sample Oxidation	High temperature combustion oxidizes inorganic and organic nitrogen compounds to NO
Measurement Principle	NO measurement using an electrochemical sensor
Measurement Range	100 ppb–1,000 ppm
Correlation Coefficient	0.9995
Reproducibility	3% RSD or ±25 ppb, whichever is greater
Power Supply	Power from 1030C TOC Analyzer, 9-V backup battery maintains polarization of the detector

TOC анализатор 1030S OI Analytical

Take your analysis to the next level with the Aurora 1030C TN_b Module. As an add-on option to the Aurora 1030C TOC Analyzer, the TN_b module allows for simultaneous analysis of total bound nitrogen concentrations in aqueous samples. It’s a smarter, safer, and more efficient solution to total nitrogen analysis.

Move over Total Kjeldahl Nitrogen (TKN) testing. There’s a new total nitrogen analyzer in town, and it draws a quick analysis time of 10-15 minutes…

The Aurora 1030C TN_b Module measures the total bound nitrogen (TN_b) content of water samples to provide an indication of the amount of pollutants present in those samples. Total bound nitrogen consists of dissolved ammonia, nitrates, nitrites, amines, and other nitrogen-containing compounds.

The TN_b analysis module is an optional accessory for the Aurora 1030C TOC analyzer that allows measurement of total bound (inorganic and organic) nitrogen (excluding N_2) concentrations in aqueous samples. Total nitrogen can be measured simultaneously during NPOC and TC analysis or as a separate function when operated in the TN_b analysis mode.

Principal applications include: drinking water, wastewater, sewage effluent, agricultural runoff, and surface water. Methods used include: EN-12260 and DIN-ISO 11905-2.

Aurora 1030C TN_b Module Features:

Direct measurement of Total Nitrogen (TN_b) concentration in aqueous samples

Faster analysis time than Total Kjeldahl Nitrogen (TKN) testing (10–15 minutes versus 2–3 hours)

High temperature combustion used in the Aurora TN_b is more effective for difficult sample matrices such as brines and particulates

Eliminates labor and hazardous chemical exposure associated with TKN digestion

TN_b module mounts onto the Aurora 1030C TOC Analyzer, requiring no additional lab benchspace

TN_b Analysis Module	Factory installation or in-field upgrade
Analysis Mode	Simultaneous with NPOC and TC analysis or independent TN_b analysis
Sample Oxidation	High temperature combustion oxidizes inorganic and organic nitrogen compounds to NO
Measurement Principle	NO measurement using an electrochemical sensor
Measurement Range	100 ppb–1,000 ppm
Correlation Coefficient	0.9995
Reproducibility	3% RSD or ±25 ppb, whichever is greater
Power Supply	Power from 1030C TOC Analyzer, 9-V backup battery maintains polarization of the detector

TOC анализатор 9210p OI Analytical

Achieve reliable, economical, and real-time analysis of natural organic matter (NOM) levels in influent and effluent streams with the 9210p Online TOC Analyzer.

Need to monitor organic contaminants in water and wastewater streams? Our 9210p Online TOC Analyzer was developed from 45 years of experience, so it addresses important issues like performance, reliability, simplicity, and cost effectiveness. This instrument provides fast, accurate results allowing you to rapidly adjust the treatment process and more precisely control coagulation, flocculation, and formation of disinfection by-products, helping your facility stay in compliance and reduce costs.

Reliable Data for Regulatory Compliance and Process Control

The 9210p is fully compliant with USEPA Method 415.3 and SM 5310C. It combines the robust heated persulfate oxidation method with a patented, solid-state infrared detection technology for unparalleled accuracy and precision across a range of 50 ppb to 250 ppm.

Engineered for operation in process environments, the 9210p requires no external gases, minimal preventative maintenance, and uses standard reagents. Calibration is typically stable for 12 months.

9210p TOC Features:

Flexible - Ideal for drinking water, municipal wastewater, surface water, ground water, and other industrial water streams

Reliable - Compliant with USEPA Method 415.3 and SM 5310C

Economical - Uses standard reagents, does not require external gases or expensive service contracts

Simple – A large, touchscreen display, paired with an easy-to-use interface, simplifies set-up and access to data, trending, and diagnostic screens

Analog Outputs	2, 4-20mA (User-configurable concentrations)
Calibration	2 point (KHP two standards)
Certifications	CE, EMC EN50082-1, and EN 55011 Group 1 Class A
Data Export	To PC via Ethernet, or using a USB memory stick (Microsoft® Excel®-ready .csv file format)
External Dimensions	48.3 cm H x 31.1 cm W x 31.1 cm D (19 in H x 12.25 in W x 12.25 in D)
Gas Requirements	< 200 mL/min. 99.99% N2 or CO2-free air
Input Relays	2 (remote start, remote stop)
Instrument Enclosure	NEMA 4X / IEC Class IP-56
Measurement Accuracy	+5%
Measurement Ranges	0.050 to 25 / 5 to 250 ppm carbon
Measurement Technique	Non-dispersive infrared (NDIR) detection
Operating Environment	5 – 45 °C, up to 90% humidity (non-condensing)
Operating Priciple	Heated sodium persulfate oxidation
Operator Interface	Windows® CE-based, color touchscreen display

Output Relays	2 (system alarm, sample alarm)
Power Requirements	24VDC (Optional 24VDC power supply allows operation with 90-250VAC 50/60Hz source)
Reagents Required	Sodium persulfate, phosphoric acid
Regulatory Method Compliance	USEPA 415.3 (Source water & drinking water) SM 5310 C (Water & wastewater)
Sample Processing / Analysis Time	4 to 9 minute intervals
Weight	11 kg (24 lbs)