

Flow Solution 3700

Automated Chemistry Analyzer



Automating Wet Chemistry for

Flow Solution™ 3700

For years, laboratories have turned to OI Analytical for accurate, reliable continuous flow analyzers. Our next generation of flow instrumentation features game-changing technology that significantly improves laboratory workflow, making the Flow Solution 3700 Automated Chemistry Analyzer the most efficient, flexible, and easy-to-use system available for automated wet chemistry analysis.

Perform 30-90 analyses per hour, per channel

Automate sample preparation and analysis of USEPA, ASTM, ISO, DIN or in-house QA/QC methods

Save time and money by automating digestion, distillation and/or dialysis

Use any combination of SFA, FIA, iSFA and/or sFIA methods with a variety of detectors

Versatile single platform for regulatory monitoring, QA/QC, and research

Intuitive FlowView software provides powerful data analysis capability



Advanced Technology for Superior Performance

Flexible, Modular Design

The unique, modular design of the FS 3700 gives the system superior flexibility. Different flow methods, including SFA (segmented flow analysis), FIA (flow injection analysis), iSFA and SFIA can be run on different channels on the system simultaneously. A variety of preconfigured chemistry cartridges and industry-leading detectors can be utilized with plug-and-play ease. Multiple systems can be linked to provide additional channels of concurrent analysis.

Validated Methods

OI Analytical validates the hardware configuration and performance of every method supplied with the FS 3700 analyzer, providing users a total analysis solution. Methods for aqueous samples, soil or plant extracts are available to support environmental compliance monitoring, process optimization and research applications.

Ammonia, Chloride, Cyanide, Fluoride, Nitrate, Phenol, Phosphorous, Silica, TKN, and more!

Laboratory Productivity

Powerful Software Capabilities

FlowView™ Software

The intuitive FlowView software is unparalleled in competitive systems. Designed for 32- or 64-bit Windows® operating systems, FlowView's improved user interface streamlines scheduling, operation and report generation from the FS 3700. The icon-driven user-interface simplifies navigation and helps new users quickly become proficient.

- On-the-fly sequence editing and calibration monitoring
- LIMS-compatible import/export with user-friendly, customizable report generation
- New, refined algorithms for peak detection, baseline handling, and carry-over correction
- System configuration and method parameters are archived with the data in each result file
- Unparalleled access to instrument component diagnostics in real-time, even during data collection



Versatility with Plug-and-Play Ease

Interchangeable Chemistry Cartridges

The FS 3700 utilizes interchangeable, pre-assembled chemistry cartridges for maximum versatility and ease of use. Each chemistry cartridge is configured with all of the components needed to perform each validated analysis method. Just attach the pump tubing and detector flow cell and you are ready to go. The FS 3700 runs up to 2 channels simultaneously, each with its own cartridge, with additional channel configurations available. Modular, flexible hardware provides a great platform for research, in-house or proprietary methods.

Plug-in Detector Modules

The FS 3700 comes standard with two detector boards, each capable of supporting photometric, amperometric, ion-selective electrodes and third-party detectors out of the box. This provides additional flexibility to tailor methodology for research or quality control processes while utilizing fluorescence, flame photometric or other detectors. Refinements in detector design have improved signal-to-noise ratio and doubled sensitivity.

The Expanded Range™ photometric detector and autoscaling software virtually eliminate off-scale samples. Calibration curves can span four orders of magnitude, providing accurate results the first time – without the need for additional injections or an autodilutor.







- In-line heating/UV digestion programmable in 1 °C increments
- Automated injection valves minimize noise and pressure fluctuations
- Magnetic mixing tees move them as best fits your configuration
- Unattended start-up and shut-down
- Leak detection (user definable action)

FS 3700 Specifications

Analysis Module

Analysis Module Dimensions

FS 3700 Dimensions with 90-position Autosampler

FS 3700 Dimensions with 360-position Autosampler

Injection Valve

Photometric Detector

Amperometric Detector

In-line Heater

UV-digestion Module

Peristaltic Pump

Autosampler

Tubing

Manifolds / Fittings

Analysis Methods / Documentation

Operating Software

Operating System

Data Collection

PC to FS 3700 Communications

Power Supply

Power Requirements

Weight (Analysis Module)

Certifications

1 or 2 chemical analysis channels per chassis

31 in. W x 17.5 in. D x 10.5 in. H

 $78.74 \text{ cm W} \times 44.45 \text{ cm D} \times 26.67 \text{ cm H}$

Approximately 44 in. (112 cm) W

Approximately 51.5 in. (131 cm) W

8 or 10-port switching valve with chemically-inert wetted surfaces

420-880 nm, with PEEK path lengths of 5-, 10- or 20-mm

Silver working electrode, silver/silver chloride reference, stainless steel

counter electrode

Included as needed, mounted underneath chemistry cartridge, user

programmable in 1 °C increments

Included as needed, mounted underneath chemistry cartridge

24-channel, fits on top of analysis module

90-position, X-Y-Z (90 samples + 9 standards) 360-position, X-Y-Z (360 samples + 10 standards)

FEP Teflon® and EVA ethylene-vinyl acetate copolymer

Polysulfone

Validated chemistries for specific analytes/sample matrices with

performance data

FlowView

Windows® 7, Windows® 8, 8.1 and 10

6 channels per instance of software

Multiple instances of software can be run on a single computer

USB

24VDC universal switching power supply for operation with 90-250VAC

50/60Hz source

110VAC/60 Hz or 230VAC/50 Hz

19.5 kg (43 lbs.), typical for analysis module and pump, two injection

valves, chemistry cartridges, detector modules

CE Safety EN 61010-1

EMC Immunity & Emissions EN 61326-1:2006



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