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Find the *Extrel Questor IV* at our website: ***Click HERE***

ABB Extrel Questor IV

Process Mass Spectrometer



ABB Automation Inc.
Analytical Division - Extrel

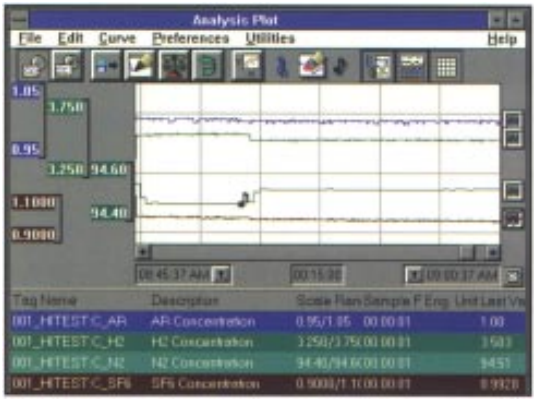


ABB Extrel Questor IV
Process Mass Spectrometer

Questor IV™ *represents the first process mass spectrometer built by the customer. The features and design of the Questor IV were defined with the council and advice of 12 industry leaders. This* ***Advisory Board*** *of analyzer experts, plant managers, engineers and technicians from the petrochemical, environmental, biotechnology, metals and semi-conductor industries met with ABB Extrel® development scientists to create product specifications. During the development cycle, the advisory board monitored the progress leading up to this significant new product. No other, manufacturer can claim such a customer driven approach to product development. Questor IV establishes a new paradigm for process mass spectrometers and process analyzers in general. The advisory board set three key attributes for the development team. The final product had to be* ***easy to operate, easy to maintain and easy on you****.* These attributes drove our developers to the innovations you find in today's product.



Easy to Operate

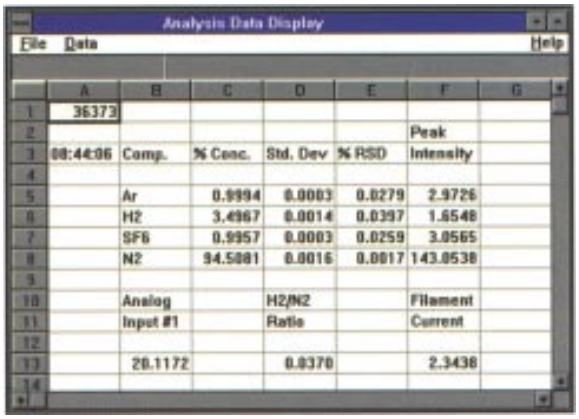


Windows Based Operating System

Questor IV's operating system is based on Microsoft® Windows™ and a simple point and click operator interface coupled with drop down menus. Display options include graphic and tabular displays for both real time and archived data. Data collected with the Questor IV is also compatible with most windows programs allowing for easy report writing, data analysis and desktop publishing.

SMARTware™

Questor IV is fully automatic in every aspect. Under the **SMARTools™** feature, the operator can choose **SMARTune™** to automatically tune the mass spectrometer for optimum component sensitivity and instrument performance. Also under the SMARTools™ umbrella, the operator can choose **SMARTmethods™** to build analysis and calibration methods for any set of operator defined components. Once the analysis method is defined, SMARTmethod™ helps determine the optimum calibration method. Other features include:



- **SMARTsequence™** allows the operator to define stream selection, analysis methods, survey scans and SMARTunes™, on either a time, or eventor frequency basis.
- **SMARTswitch™** automatically switches the Questor IV to a spare filament once the original filament burns out.
- **SMARTrange™** constantly senses the intensity of each component and selects the most sensitive detector range improving precision and dynamic range.
- **SMARTstart™** automatically restarts the Questor IV in the event of a power interruption.

Questor IV is designed with mappable data outputs. This allows operators to recall specific data points using data point tag identifiers. Unlike other analyzers that store data under more general identifiers, Questor IV allows you to get **right to the point.**

The Questor IV also includes a **SMARTcursor™** for use with our graphic displays. This feature allows the operator to get concentration data and time stamps for any point displayed on the graph. During a process upset, this is a particularly valuable tool.

EASY TO MAINTAIN

Innovative

Questor IV was designed for easy maintenance. Beginning with ergonomics, Questor IV allows the operator to perform routine maintenance quickly without the frustration of reaching around, over and under the product. The vacuum system and components are mounted on the ABB Extrel patented **VacTRAC® II** for easy maintenance of the analyzer and vacuum pumps. The electronics are all modular and mounted in a swing cage making upgrades and replacements as easy as sliding in a new module.

Quick Questor

Innovations surrounding the easy to maintain objectives include the **QuickStick™** and **QuickInlet™.** QuickStick™ allows the operator to change the instrument filaments without tiresome disassembly of the ionizer. Now a change of filaments can be done in minutes. QuickInlet™ lets the operator change the mass spectrometer's inlet in seconds without the tedious alignment and careful attention required by other instruments.





EASY ON YOU!

Commissioning

Questor IV is easy on you. From installation to the day to day operation, this instrument was designed to be **easy on you.** ABB Extrel's guaranteed start up service promises smooth installation and operator training. The instrument requires only one power line and a compressed air supply. In most cases, the instrument is running in less than 30 minutes.

Systems are available which are suitable for Class 1, Division 2; Class 1, Division 1; and Cenelec hazardous locations. It can be installed on the wall or simply allowed to stand on the industrial casters provided with every enclosure. And our SMARTcheck™ system guarantees that the instrument is calibrated and fully functional with manufacturer's specifications before it goes on-line.

Preventive Maintenance

Questor IV is designed with a disposable ion volume which eliminates the need for cleaning the ionizer. Beyond these advancements, Questor IV is packed with software that makes trouble shooting, record keeping and repair simple. The instrument has on-line maintenance logs, real time diagnostics and status indicators in the software and at the modular level to aid the technician in troubleshooting. The **SMARTlog™** automatically records any disturbance to normal operation and sets flags for the operator when necessary.



SMARTalk™ Remote Service Center

Questor IV's **SMARTalk™** features give the full advantage of today's most popular communication protocols. Starting with a Modbus interface for communication with all the leading DCS units, Questor IV offers a variety of choices for serial interfaces. Communication links are also available in 4-20 mAmps and 0-10 volt analog formats.





SMARTalk™ doesn't end with data links to your DCS. Using SMARTalk's™ remote communication option, **SMARTlink™,** ABB Extrel's service engineers and application chemists can take full control of Questor IV from any of ABB Extrel's Service Centers.

This remote capability means our staff of professionals can build applications, run diagnostics, optimize instrument performance and troubleshoot problems with a simple phone call. In fact, our software engineers created a special command language for board level troubleshooting by our service engineers. This means the customer no longer must wait for a field service engineer to arrive on-site before problems are evaluated and solved.

With **Easy to Operate SMARTware™**, **Easy to Maintain Hardware and Easy on You Communication Links,** Questor IV meets the objectives set by our advisory board of industry leaders. No other process analyzer meets these rigid requirements.

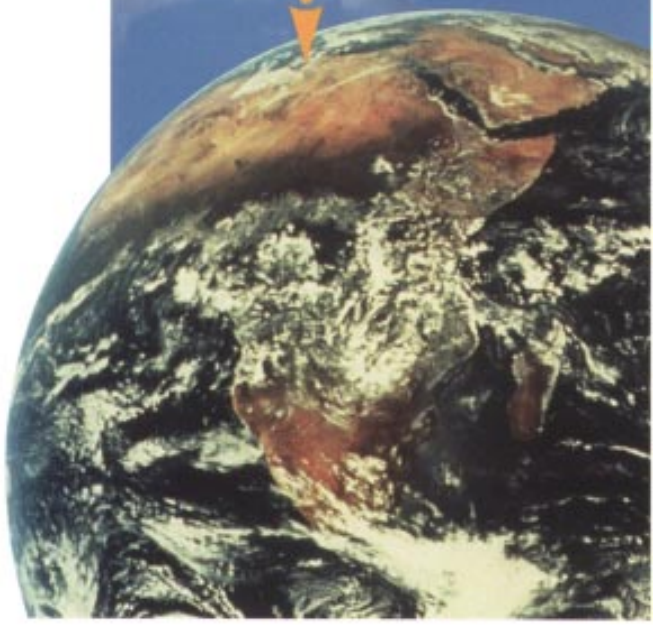


ABB Extrel Questor IV

The information in this brochure contains only, a general overview of the Questor IV Process Mass Spectrometer. Our applications staff will provide a detailed technical report on your application. Simply fax us a completed Fact Finder information sheet and allow us to show you how you can sharpen your process control.

Ask for specific details on additional information for the following Questor IV applications:

- Petrochemical
- Air Monitoring
- Metals Production
- Semiconductors
- Biotechnology
- Paper/Pulp

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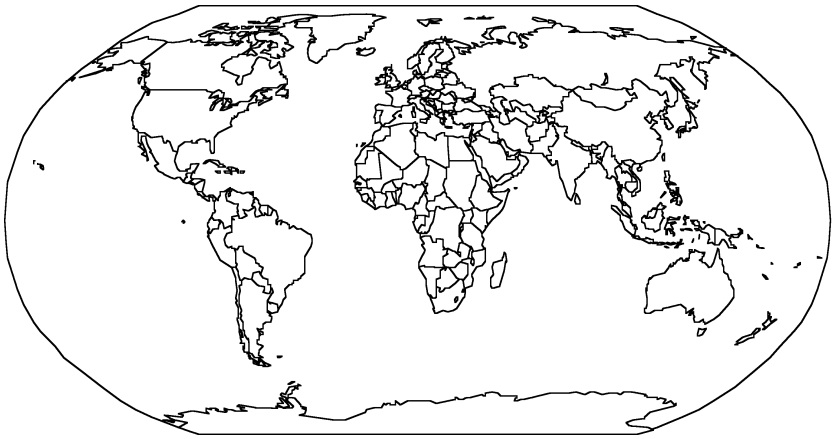


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