





Designed for Challenging Applications

HORIBA Scientific develops and manufactures high performance ICP-OES spectrometers for more than 35 years.

The new Ultima Expert LT provides high performance at affordable price for laboratories with challenging samples

Ultima Expert LT integrates high efficiency Jobin Yvon optical design capable to achieve optimal performance for a large variety of sample types and matrices.

Ultima Expert LT is driven by the powerful Analyst software featuring a large variety of analytical functionalities for tailored control and analysis.

The robustness of the Ultima Expert LT makes it ideal for applications common to mining, chemicals manufacture, salt production, wear metals in oil analysis, petrochemical and metallurgical production

Gain in performance with the Ultima Expert LT for your most challenging applications!

Ultima Expert LT

Superior Performance in ICP-0ES

ertical torch with radial viewing

Ionic lines

Recombination

Normal Analytical Zone

Atomization

Unique Plasma Torch Design for Most Versatile and Accurate Analyses

Ultima Expert LT uses a unique plasma torch design with radial viewing mode to allow viewing of the entire normal analytical zone.

The vertical torch, the original sheath gas device and the wide injector enable the Ultima Expert LT to handle difficult matrices, with robust operation and minimal maintenance.

Ultima Expert LT ensures the lowest detection limits even with the most challenging samples, such as high salt content, brines, dissolved solids and complex organics.

Its water-cooled high efficiency 40.68 MHz solid state generator enhances the ability to handle a large range of samples, reduces warm-up time down to 15 min, and improves stability and reliability.

All these features make the Ultima Expert LT the most versatile, accurate and robust ICP OES spectrometer available.

High Resolution and Full Wavelength Coverage

Ultima Expert LT delivers the highest resolution with less than 5 picometers for the UV range and less than 10 picometers for the Visible range. Such resolution can be achieved due to the unique optical design of the Ultima Expert LT, which integrates a high density holographic grating and one meter focal length optics.

Full wavelength coverage from 160 to 800 nm is offered to satisfy all the requirements for elemental analysis. Optional Far UV kit is available to extend coverage down to 120 nm for halogen elements analysis.

High resolution and excellent sensitivity allow elements with high, low and trace concentrations to be measured accurately, giving you maximum confidence in your results.

Easy to Handle, Easy to Maintain

Spacious compartments for sample and plasma are designed to facilitate sample handling.

Quick release, fully demountable torch with no adjustment required facilitates multi-user operation and provides excellent reproducibility.



Spacious — sample compartment

Corrosion resistant removable sample tray

HORIBA DIEMS EXCRET

Built-in 3 channels peristaltic pump and external sample introduction system for facilitated access

Powerful Software with Advanced Features

ICP Neo software for HORIBA Scientific ICP-OES spectrometers is designed to facilitate method development, samples measurements and results management.

ICP Neo delivers powerful tools for samples measurement with **new HDD mode** integrated for standard measurement, **advanced Quality Control Protocols** and **retrospective analysis** with respect to the integrity of raw results to match with good laboratory practices requirements.







Line selection using S³ base

France: Tel: +33 (0)1 69 74 72 00 USA: Tel: +1 732 494 8660 Japan: Tel: +81 (75) 313-8123 Germany: Tel: +49 (0)6251 8475-0 **UK**: Tel: +44 (0)20 8204 8142 Italy: Tel: +39 2 5760 3050 China: Tel: +86 (0)21 6289 6060 Brazil: Tel: +55 (0)11 2923 5400 Other: Tel: +33 (0)1 69 74 72 00

www.horiba.com/scientific info.sci@horiba.com

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Resolution



















Standard Configuration

Generator Radio-frequency, solid-state 40.68 MHz,

water-cooled Spectral range 160 - 800 nm

Spectrometer Thermally stabilized. 1 meter focal length with

2400 g/mm grating used in the 1st and 2nd

<5 pm for 160-320 nm and

<10 pm for 320-800 nm.

Fully demountable torch with 3 mm i.d.

Plasma torch alumina injector and quartz tubes

Sample introduction Concentric glass nebulizer and glass cyclonic

spray chamber, 3 channel peristaltic pump

Facility requirements

1696 x 698 x 604 mm Dimension (wxdxh) 205 kg (452 lb) Weight

Power supply Single phase, 220-240 V, 50-60 Hz, 4 kVA Environmental 20 to 80 % humidity, 18-24°C at ± 2°C

Argon 99.995 % purity

160 to 190 nm, 99.999 % purity Nitrogen 120 to 160 nm, 99.9995 % purity

Exhaust 250 m³/h (150 cfm)

Options

Instrument

Accessories

Dual back-to-back gratings (4320 g/mm and 2400 g/mm) used in the 1st order offering resolution < 6pm for 160-450 nm and < 10 pm for 450 - 800 nm

Far UV kit to extend measurement capability down to 120 nm for halogen elements analysis Autosampler AS-500 with optional rinse station Argon humidifier

Introduction system kits for improved performance (small volume, organics,

Hydrofluoric acid, high total dissolved solids) Concomitant Metals Analyzer for simultaneous measurement of hydride forming elements

and other elements

Oxygen kit for alkali elements in organics

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