

The Thermo Scientific iCE 3400 AA Spectrometer offers a dedicated furnace atomizer system with outstanding performance and productivity.

Thermo Scientific iCE 3400 AA Spectrometer

High performance, dedicated graphite furnace Atomic Absorption Spectrometer



The refreshingly different iCE 3400 AA Spectrometer is a combination of performance and simplicity. Superior optics, innovative design and flexible background correction options ensure unrivalled analytical performance. User-friendly, Wizard-driven software ensures that complicated analyses are made simple. The iCE 3400 provides the complete solution for furnace atomizer analysis in an innovative and easy package.



- Unique combination of both Zeeman and deuterium background correction provides the ultimate in flexible, interference free furnace analysis
- The combination of high precision, double beam optics and superbly accurate temperature control produce stunningly low detection limits and incredible analytical stability
- Unique furnace vision system included as standard improves efficiency and simplifies method development by providing a high-definition, real-time video of sample analysis
- Improved, efficient design minimizes the footprint of the instrument and ensures that day-to-day analysis and maintenance is simple
- Enhanced, user-friendly software and comprehensive Wizard-driven interface to guide you through every aspect of an analysis
- Safety comes as standard with integrated software and hardware safety features
- Simple installation and operation of the pre-aligned furnace and autosampler module
- Unique, state-of-the-art extended lifetime cuvettes (ELCs) provide vastly extended lifetimes compared to the alternatives, improving efficiency and saving you money
- Security software and validation packages allow complete 21 CFR part 11, GLP and GALP compliance (optional upgrades)

The iCE 3400 has a six-lamp carousel with automatic lamp switching, ensuring that multi-element analyses are performed easily and efficiently. Our unique optics supply unparalleled sensitivity and accuracy. The optical system is entirely sealed from the environment, which minimizes maintenance and maximizes productivity.

The unique combination of deuterium and Zeeman background correction in a single instrument gives you the flexibility to tackle the toughest samples.

The GFS35(Z) furnace module includes a furnace auto-sampler with a huge capacity as standard. This equipment is fully configurable by the user, allowing you to control exactly where you place each of your standards and samples. The furnace employs dynamic optical temperature control, which allows superbly accurate regulation of heating rates up to 3000 °C per second, giving you the highest analytical sensitivity.

Safety comes as standard with the iCE 3400. The instrument automatically detects the presence of a cuvette, furnace coolant and inert gas flow and will not allow an analysis to continue if any of these is compromised.

The enhanced software makes even the most complex analyses simple, while the new Wizards guide both new and experienced users through the most important tasks. Automated optimization Wizards ensure that you get the best performance from your instrument, while actually saving you time and effort.

Furnace vision is a standard feature on the iCE 3400 and is fully integrated into the software. This allows valuable information to be obtained during the sample injection and analysis phase.

The iCE 3400 is easy to upgrade with various accessories so your instrument can adapt to your future needs.

Technical Specification

Optics	Dual beam
Monochromator	Echelle type
Lampcarousel	6 lamp coded, auto-aligning
Photomultiplier	Wide range (180 nm - 900 nm)
Furnace atomizer	GFS35(Z) combined module
Furnace vision system	As standard
Background correction	Guaranteed Quadline and AC Zeeman systems
Gas management	Automatic binary control
PC software	Included as standard
Security package	Optional
Validation package	Optional

The Thermo Scientific iCE 3000 Series comprises of:-

iCE 3300 Atomic Absorption Spectrometer:-

Single flame atomizer AAS with fully automated gas box.

iCE 3400 Atomic Absorption Spectrometer:-

Single furnace atomizer AAS with Zeeman and D₂ background correction.

iCE 3500 Atomic Absorption Spectrometer:-

Dual flame and furnace system AAS with Standard or Zeeman furnace option.

The iCE 3000 Series provides an unrivalled range of solutions from Thermo Fisher Scientific, the award winning innovator in Atomic Absorption Spectrometry.