

AA ICP-MS ICP Specification^{sheet}

SOLAAR M Series AA Spectrometers



- Dual flame and furnace atomiser AA spectrometer
- The smallest footprint by far for any comparable product - amazingly less than 0.5 sq m
- Stunning simplicity of use, with no atomiser changeover or alignment, a new Windows wizard-driven user interface and an optional quarter VGA local control
- A completely new Echelle monochromator-based optical system, providing new levels of unrivalled detection capability
- A choice of Zeeman or non-Zeeman furnace systems, available with or without complementary flame system - all within the same spectrometer footprint
- An automated Validation package together with rational database archive, full QC software and audit trail reporting

The concept of the new SOLAAR M Series is simplicity itself - a Stockdale double beam optical system, each beam passing through a separate atomiser. The user defines which is the sample beam - hence which atomiser is selected. Flame to furnace changeover can, therefore, be totally automatic - no manual intervention whatsoever. Alignment is perfect, productivity is significantly enhanced and performance guaranteed. No wasted energy and single beam performance with double beam stability!

Unrivalled flame sensitivity is guaranteed. A combination of fully inert spray chamber, impact bead, spoiler and Pt/Ir nebuliser is suitable for all flame and sample types and provides high efficiency nebulisation. The super cool, high solids Universal burner ensures exceptional atomisation.

The automatic gas control management system employs binary flow control, providing reliable repeatability for all flame conditions. Automatic burner height and gas flow optimisation ensures simplicity of operation. Even the optical instrument parameters may be optimised automatically.

SOLAAR M Series offers a choice of either conventional or AC Zeeman graphite furnace to provide unrivalled analytical detection power with minimum interferences. Both systems employ dynamic optical temperature control to achieve heating rates in excess of 2000°C per second, independent of cuvette age.

New graphite technology has resulted in Thermo Elemental's unique Extended Lifetime Cuvettes (ELC) with up to ten times the lifetime of alternatives - uninterrupted overnight analysis which also proves surprisingly cost effective.

Pre-heated cuvette injection, coolant water temperature compensation and fast furnace operation are examples of the attention to detail which ensures perfect analyses.

Thermo Elemental

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For flame analysis a wide variety of high capacity Gilson and CETAC autosamplers are available. On-line and even in-line dilution systems can provide fully automatic standard and sample preparation.

Automation is essential for furnace AA. SOLAAR M Series provides the best. Huge capacity and every conceivable solution preparation facility cater for every need. With automated ash/atomise temperature optimisation, autosampler loading guides and a choice of background correction technique, furnace analysis has never been easier.

SOLAAR M Series

- 6 lamp, auto aligning carousel
- Unique data-coded lamp capability
- Binary flow, fully automatic gas control system as standard
- Universal burner and spray chamber for all elements and matrices
- Full flame optimisation of burner position and gas flow
- QuadLine background correction on all systems, including Zeeman
- Automatic burner height adjustment
- Choice of LCD local control or 32 bit Windows PC system
- Optional GFTV in-cuvette video imaging
- Automated system Validation option

SOLAAR M Series - Technical Specifications

| | M5 (9423 400 20021/2) | M6 (9423 400 20062) | MQZ (9423 400 20072) MQZe (9423 400 20572) |
|-----------------------|---|--------------------------|---|
| Optics | Stockdale Double Beam | Stockdale Double Beam | Stockdale Double Beam |
| Monochromator | Echelle | Echelle | Echelle |
| Lamp Carousel | 6 Lamp Coded, Auto Align | 6 Lamp Coded, Auto Align | 6 Lamp Coded, Auto Align |
| Photomultiplier | Choice of standard (1) or wide-range (2) | Wide range | Wide range |
| Flame Atomiser | Universal System | Universal System | None |
| Furnace Atomiser | Conventional (9423 490 20001) | Zeeman (9423 490 20051) | Zeeman (9423 490 20051) |
| Background Correction | QuadLine | QuadLine & Zeeman | QuadLine & Zeeman |
| GFTV | Option | Option | Option |
| Gas Management | Auto (Binary Control) | Auto (Binary Control) | None |
| Processor | 68340 | 68340 | 68340 |
| PC Software | Included as standard | Included as standard | Included as standard |
| Local Control Option | Quarter VGA LCD | Quarter VGA LCD | Quarter VGA LCD |
| Validation | Option | Option | Option |

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The apparatus described in this leaflet has been designed as far as possible to meet high international safety standards when installed and operated in accordance with accepted procedures and with the safety precautions detailed in the User's Manual. We reserve the right to alter the specifications of the equipment described in this leaflet without prior notice.

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