FIA-System

The MLE FIA system is a modular automated multichannel analyzer. Operation, data acquisition and data processing are PC-controlled.

Each analytical module comprises

- 8-port injection valve
- step-motor driven 6-channel peristaltic pump(s) (long-life)
- method unit
- photometric detector with 2-chip sensor for maximum signal stability
- status control display

FIAmodula analytical modules have one peristaltic pump and a fixed method unit; they are primarily destined for the determination of standard parameters in multichannel mode.

FIAcompact analytical modules have two peristaltic pumps and an exchangeable method unit; they are universally applicable for the determination of all the parameters in the list of methods. Those modules may not only be used in multichannel mode but also as a single-channel system as the method units can be easily exchanged (of interest for laboratories with relatively low sample loads who want to benefit from automation).

FIAmodula and **FIAcompact** analytical modules can be used in mixed configuration.

The **FIAsampler** autosampler can accommodate two different sample trays with differing sample volumes. Its integrated dilutor prepares automated dilutions from off-range samples (degree of dilution variable).

The 8-port injection valve is equipped with two different sample loops so that two adjacent measurement ranges are available without need for hardware change.

The analytical methods used (see list of methods) are ISO/EN/DIN standardised flow analysis procedures where possible. The measuring ranges are calibrated ranges with typical coefficient of variation 0,5 … 1 %; the quantification limits are lower.

FIAmodula and **FIAcompact** are delivered completely with method units and accessories (pump tubes, connectors, bottles, etc.).

The MLE FIA system is controlled by the WINDOWS-based software **FIAcontrol** which also performs acquisition, processing, management and archiving of the measurement data. **FIAcontrol** also includes a data export facility for LIMS systems.

The purpose-oriented format in which the analytical methods are stored makes it easy to change or adapt analytical methods as well as to develop new methods.