

## 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

The analysis module **FIA Nexus** combines proven technology with a new 5 cm photometer and latest control electronics. The method units are easy and quick to change within a few minutes. Thus, FIA Nexus allows the sequential measurement of different parameters in the case of low sample volumes. For a high sample throughput several FIA Nexus can be operated in parallel. From the same sample, several parameters are then determined simultaneously with a run. The basic unit is equipped with a 6-channel reagent pump. For the implementation of complex processes with digestion or enrichment, a second pump and digestion components can be integrated. These can also be retrofitted later.



The autosampler **FIAsampler** 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.

The analysis module **FIA Nexus** are delivered completely with method units and accessories (pump tubes, connectors, bottles, etc.).

The MLE FIA system is controlled by the WINDOWS-based software **FIAstudio** which also performs acquisition, processing, management and archiving of the measurement data. **FIAstudio** 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.