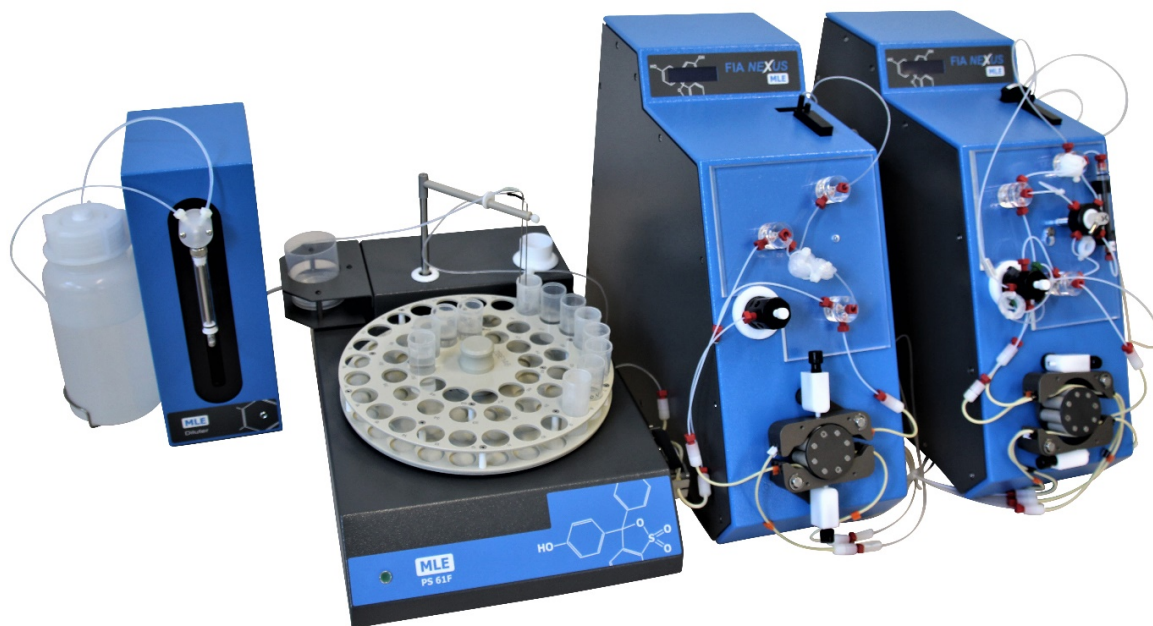


FIA system

The automated analytical system is developed for determinations in laboratories performing water and environmental analysis as well as food sample analysis using standardized analytical procedures with a photometric detector. The FIA system is designed as a multichannel, easy-to-use wet-chemical analysis system which is controlled by a PC. The detection is carried out photometrically, whereby the measured data is recorded and managed with the **FIAStudio** software. Due to the modular setup, the FIA system can be customized to meet the specific requirements of the laboratory.



Each analysis module comprises the following functional parts:

- 8-Port-injection valve
- Step-motor driven 6-channel-peristaltic pump (long life)
- Photometer with 50 mm cuvette compartment and replaceable interference filter
- Display to show the current operating status

The analysis device **FIA Nexus** combines proven technology with a new 50 mm photometer and state-of-the-art control electronics. The method units can be exchanged easily and quickly within a few minutes. Thus, **FIA Nexus** enables the sequential measurement of different parameters when the number of samples is low. For a high sample throughput several **FIA Nexus** can be operated in parallel. Thus, several parameters can be determined simultaneously from the same sample in one run. The basic device is equipped with a 6-channel peristaltic pump. For the implementation of complex methods with digestion or enrichment, a second peristaltic pump and digestion components can be integrated. These components can also be retrofitted.

The autosampler of the analyzer system can distinguish two sample trays with different types of vials. The available dosing unit performs an automatic dilution for off-range samples (e.g. 1:10 dilution).

Due to the 8-port-injection valve two measurement ranges can be realized without modification.

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The control of the single or multi-channel FIA system is carried out by the Windows-based software **FIASstudio**. In addition, it is used to record, process, manage and archive the measurement data. An export function for transferring the measurement data e.g. to a laboratory information and management system (LIMS) is also part of **FIASstudio**.

The available analytical methods correspond – if available – to the DIN / EN / ISO standardized procedures or are based on manual standard methods that have been adapted to flow analysis. The measurement ranges of the individual parameters are listed in the method list. The coefficient of variation of the measurement ranges is typically between 0.5 ... 1 %.

Typical available parameters:

ammonium	free cyanide	magnesium	silicate
anionic tensides	total cyanide	nitrate	sulfate
chloride	total aluminium	nitrite	dissolved sulfide
chromium (VI)	total nitrogen	orthophosphate	free sulfite
iron (II) / total iron	total phosphorus	phenol index	total sulfite

An alteration / adjustment of the methods as well as the development of new methods is easily done due to the simple handling of the software.

FIA Nexus comes complete with the method units and accessories (pump tubings, connectors, reagent bottles, et cetera).