LFE Sample Filter

LFE Laboratorium für
industrielle Forschung GmbH & Co.
Entwicklungs KG

LFE Analytical Instrumentation

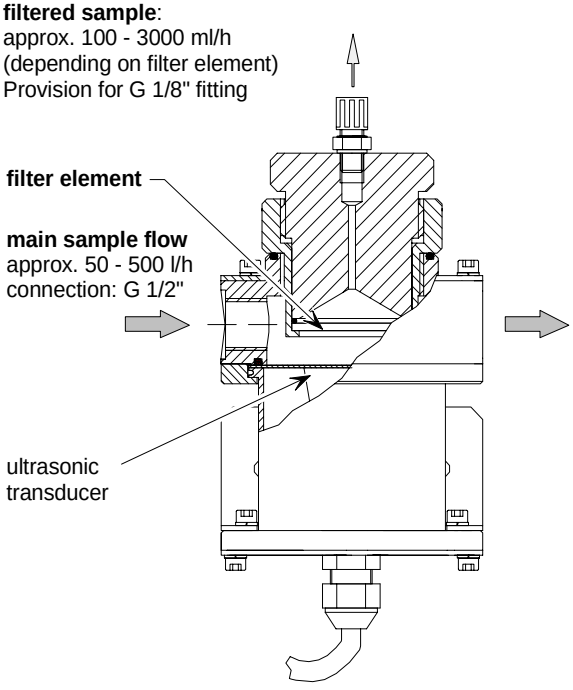
Sample Filter with Ultrasonic Cleaning for on-line Water Analysis

On-line water analysis often places heavy demands on sample filtration. Aside from the expected high availability of the analysis system in conjunction with low maintenance requirements, defined filter characteristics must be assured.

The sample filter system manufactured by LFE helps meet these requirements using a cross-flow filter element. The filter element is irradiated at adjustable, regular intervals by ultrasonic energy. The ultrasound generator (approx. 35 kHz) creates cavitation in the water sample which serves as the coupling medium. The implosions of a tremendous number of micro cavitation bubbles results in the familiar excellent cleaning effect. The particles loosened from the filter element are carried away by the main sample stream.

The filtered sample can be taken continuously from the cleaned filter element.

LFE's sample filter consists of the corrosion resistant filter unit containing the ultrasonic transducer and a control unit with the timer-controlled ultrasound generator. The control unit is housed in a water-protected (IP66) wall-mount housing.



Features

- cross-flow filter element
- timer controlled ultrasound irradiation of filter element
- various filter elements available with pore sizes ranging e.g. from 5µm to 200µm; materials e.g. 1.4401 stainless steel or PA (Polyamide)
- constant filtering characteristics
- highly corrosion resistant filter unit constructed of PVDF with ultrasound transducer made of Hastelloy®
- high reliability
- low-maintenance

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