

Spectrometric Water Quality Monitors

This unique submersible instrument allows continuous monitoring of nitrates, organic compounds, turbidity, colour and many other features of monitored water. The organic pollutants may be monitored as specific compounds (for instance benzene, toluene, gasoline, diesel oil, etc.), or as general characteristics like TOC, COD, BOD, hydrocarbons in water. It allows portable, stationary or battery powered long term logging applications with instant response time.

Multisubstance measurements with one single instrument; high resolution UV-Vis spectra allow selective distinction between many substances.

2-beam-measurement ensures constant measuring quality over long periods of time with virtually no instrument shift.

Intelligent spectral compensation provides:

- superior turbidity correction considering the character of turbidity
- superior identification and correction of long time effects like biomass growth on windows

"Spectral Fingerprinting" - approach allows definition of sensitive, accurate, reliable alarm and early warning parameters.

Full field compatibility: no installation, plumbing and interconnection problems in the field; low energy consumption at 12 V; robust design.

Better overall accuracy and security: reduction of the "Total Error of Measurement" no sampling-, transport-, handling-, storage-, counting-, diluting-, etc. mistakes, no mixing up of samples.

Additional probes or autosamplers are often unnecessary; much higher flexibility in the field.

Autonomy features: internal buffered data logger; energy autarkic; self testing and alarm routines; networking capability; integrated hydraulic cleaning nozzles optional (for high solids contents).



ECM ECO Monitoring

Environmental & Process Monitoring instrumentation & systems

Parameters can be measured simultaneously, in-stream, with one method and one completely autonomous instrument, on-site or remote controlled, even many instruments in a network.

A new level of stability, effectiveness, and time resolution can be reached, and, as a result, a surprising gain of additional information about water related processes.

High energy optical performance enables measurements in even in fluids with high optical density like oil mixtures, milk or coffee, often down to the deep UV, far superior to fiber optic instruments with respect to energy and process stability.

- spectral range: 190 nm to 380 nm or 190 nm to 780 nm
 - light sources: regulated Xenon lamp
 - long term stability: virtually no instrument shift of auto compensation based on 2 beam measurement
 - optical range: optical pathlengths from 2 to 100 mm (longer paths up to 200 mm on demand)
 - By-Pass fittings for easy installation in by-passing streams.
 - standard interfaces on board: RS 232 or 485
 - optional: CAN bus or other bus standards; via control terminal: TCP/IP, GSM or analog modem; 4-20 mA or any PC104 bus interface
 - battery buffered data logger for 1000 spectra or many 10.000's of concentration values
 - internal temperature and moisture measurement standard; external pressure sensor (water depth) optional: 0-0,1 bar; or 0-1 bar (others on demand)
 - analysers are resistant against impacts of most natural and waste waters.
- energy:**
- 12 V external; average 300 mA during measurements; 1 A supply necessary
 - sleep mode option in data logger modus reduces consumption to 5 mA inbetween measurements
 - internal battery for independent measurements optional

