matrixFlu VIS

Fluorometer

Measurement of chlorophyll-a, cyanobacteria and CDOM



Applications

- · Monitoring of bathing water: lakes, rivers and seas
- Drinking water production and treatmentr
- · Raw water treatment
- · Environmental monitoring

Advantages

- · In situ measurements, no sampling or reagent
- · Real-time sensor
- · Optical window with nano coating

Monitoring of algal development

The high-end matrixFlu VIS fluorometer combines multiple excitation and detection wavelengths for fluorescence measurements in a single device with a highly compact design.

MatrixFlu VIS is primarily designed for the online detection of algae (cyanobacteria, green algae, etc.) and is expanded by the detection of CDOM

State-of-the-art, specially selected LEDs are used for fluorescence excitation. The stability of measured values is increased by an internal temperature correction.

Online monitoring

Equipped with our innovative G2 interface with web browser configuration, internal data logger, flexible protocols and data outputs, matrixFlu offers extensive features that go significantly beyond what's available on the market today.

The unified platform of all TriOS photometers also facilitates a standardized spare parts and consumables system, which allows the use of a wide range of accessories for our devices. Furthermore the cutting-edge G2 interface enables quick integration into third-party systems.

Excitation weavelengths	
375	
470	
590	

Emission wavelengths						
460	682	655	850			
CDOM 1	CDOM 3	CDOM 2	XX3			
scat 460	chl-a	XX2	XX4			
XX1	blue2	blue1	XX5			



The special optical arrangement of excitation and de- tection channels enables not only single values to be deter- mined, but also a 4x4 matrix of wavelength combinations. This allows quasi synchronous in-situ detection of EEMs (Excitation Emission Matrices).



matrixFlu VIS Fluorimeter

Technical specifications

A photo diodes with filter	Maasuramant tashnals	light source	3 LEDs (375 nm/470 nm/590 nm)			
Chlorophyll a [µg/L] Phyocyanin [µg/L] CDOM [µg/L] Phyocyanin (2.0200 µg/L Phyocyanin (2.0200 µg/L	Measurement technology	detector	4 photo diodes with filter			
Parameter Phycocyanin [µg/L] CDOM (µg/L) CDOM (µg/L) Chlorophyll: 0200 µg/L Phycocyanin: 0200 µg/L Phycocyanin: 0200 µg/L Phycocyanin: 0200 µg/L Measurement accuracy 5% T100 response time 30 s Measurement interval 60 s Housing material Stainless steel (1.4571/1.4404) or titanium (3.7035) Dimensions (L x Ø) 155 mm x 36 mm	Measurement principle		Fluorescence			
Parameter Phycocyanin [µg/L] CDOM. 20500 µg/L CDOM. 20500 µg/L Measuring range Chlorophyll: 20200 µg/L Phycocyanin: 2200 µg/L Phycocyanin: 2200 µg/L Measurement accuracy 5% T100 response time 30 s Measurement interval 60 s Housing material Stainless steel (1.4571/1.4404) or titanium (3.7035) Dimensions (L x Ø) 155 mm x 36 mm						
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CDOM : 0500 µg/L	Parameter					
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Storage temperature \sim -4 °F to + 176 °F						
Inflow velocity $0,15 \text{ m/s}$ $\sim 0.33 \text{ fps to } 16.4 \text{ fps}$						
	Inflow velocity		0,1 5 m/s	~ 0.33 fps to 16.4 fps		