matrixFlu UV

35S10XXXX

Our high-end matrixFlu UV fluorometer combines multiple excitation and detection wavelengths for fluorescence measurements in a single device with a highly compact design. The special optical arrangement of excitation and detection channels enables not only single values to be determined, but also a 3x4 matrix of wavelength combinations. This allows quasi synchronous in-situ detection of EEMs (Excitation Emission Matrices).

MatrixFlu UV is primarily designed for the detection of PAH's (polycyclic aromatic hydrocarbons), BTX (Benzene, Toluene, Xylene), CDOM (fluorescent organic material), and TRP(Tryptophan) concentration.

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

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 state-of-the-art G2 interface not only ensures quick integration into third-party systems, but also use of the wide range of accessories for our devices.

Benefits

- Without sampling and preparation of test samples
- Real-time sensor
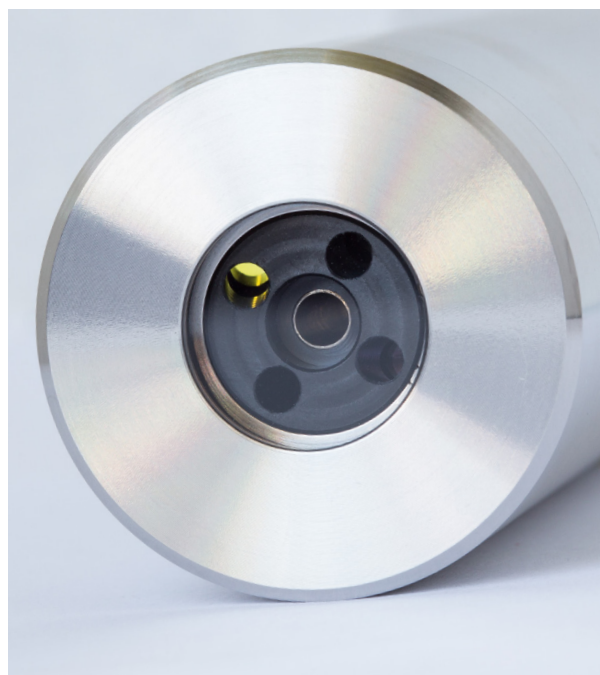- Without reagents
- Optical window with nano coating

Applications

- Surface water
- Bathing lakes
- Drinking water production and treatment
- Raw water treatment
- Environmental monitoring

Detail of design for 3x4 wavelengths

Ex	Em			
	280	360	460	540
254	BTX	PAH	CDOM 1	CDOM 4
280	scat 280	TRP	CDOM 2	CDOM 5
320			CDOM 3	CDOM 6

Technical Specifications

Measurement technology	light source	LED (254 nm/280 nm/320 nm)
	detector	4 photo diodes with filter
Measurement principle		Fluorescence

Parameter	PAH [µg/L]
	BTX [µg/L]
	CDOM [µg/L]
	TRP [µg/L]
Measuring range	0...500 µg/L PAH · 0...1000 µgL BTX · 0...200 µg/L CDOM
Measurement accuracy	5 %
Turbidity compensation	No
Data logger	~ 10 MB
T100 response time	12 s
Measurement interval	6 s

Housing material		Stainless steel (1.4571/1.4404) or titanium (3.7035)
Dimensions (L x Ø)		155 mm x 36 mm
Weight	stainless steel	~ 0,6 kg
	titanium	~ 0,5 kg

Interface	digital	Ethernet (TCP/IP)
		RS-232 oder RS-485 (Modbus RTU, OGC PUCK)
	analog	-
Power consumption		≤ 1,8 W
Power supply		12...24 VDC (± 10 %)

Maintenance effort	Typically ≤ 0.5 h/month
Calibration/maintenance interval	24 months
System compatibility	Modbus RTU, OGC PUCK
Warranty	1 year (EU: 2 years)

INSTALLATION

Max. pressure	with SubConn	30 bar
	with fixed cable	3 bar
	in FlowCell	1 bar, 2...4 L/min
Protection type		IP68

Sample temperature	+2...+40 °C
Ambient temperature	+2...+40 °C
Storage temperature	-20...+80 °C
Inflow velocity	0,1...5m/s