

nanoFlu

32SXXXXX0



Miniature fluorometer

nanoFlu fluorometers are low-priced, submersible miniaturized fluorometers for highly precise and selective measurement of CDOM (colored dissolved organic matter, yellow substances), chlorophyll A or phycocyanin in cyanobacteria. Long-term stability of measurements is ensured by the combination of low power consumption and innovative coating of

the optical window, as an energy efficient and environmentally friendly anti-fouling solution. The devices can be used in diverse applications for the monitoring of sea and river waters, as well as in drinking- and wastewater treatment systems. Internal reference signals of the high performance LEDs used for fluorescence excitation compensate aging effects and temperature influences.

Benefits

- High sensitivity
- Nano coating
- Fast data acquisition
- Electronic light compensation
- Compact size
- Low power consumption
- Low costs

Applications

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

Parameter list

Parameter
CDOM [$\mu\text{g/L}$]
or chlorophyll a [$\mu\text{g/L}$]
or cyanobacteria [$\mu\text{g/L}$]
or rhodamine [$\mu\text{g/L}$]
or tryptophan [$\mu\text{g/L}$]

Technical Specifications

Measurement technology	light source	LED
	detector	Photo diodes
Measurement principle		Fluorescence
Parameter		See parameter list p. 1
Measuring range		0...200 µg/L
Measurement accuracy		± 5 %
Turbidity compensation		No
Data logger		No
T100 response time		6 s
Measurement interval		3 s
Housing material		Stainless steel (1.4571/1.4404) or titanium (3.7035)
Dimensions (L x Ø)		171 mm x 36 mm
Weight	stainless steel	0.5 kg
	titanium	0.4 kg
Interface	digital	Ethernet (TCP/IP)
		RS-232 or RS-485 (Modbus RTU)
Power consumption	typical	< 1 W
	with network	< 1.6 W
Power supply		12...24 VDC (± 10 %)
Maintenance effort		≤ 0.5 h/month (typical)
Calibration/maintenance interval		24 months
System compatibility		Modbus RTU
Guarantee		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...10 m/s