

microFlu V2

37SX0XX1X



microFlu V2 fluorometers are submersible miniature fluorometers for highly precise and selective measurement of tryptophan, cdom, blue-green algae or chlorophyll. The combination of low power consumption and innovative coating of the measurement windows as an energy and environmentally neutral antifouling solution ensures long-term stability of the measurements. The instruments can be used in a wide range of applications for monitoring seawater, river water, drinking water and wastewater. Internal reference measurements of the high-power LED used for fluorescence excitation compensate for aging effects and temperature influences. microFlu V2 is equipped with a RS-485 interface, which enables allows easy and fast sensor configuration via Modbus. Integration into existing process control systems and external data loggers has never been easier.

Advantages

- without sampling and sample preparation
- without delay
- without reagents
- high sensitivity and selectivity
- optical windows with nanocoating
- electronic daylight compensation
- handy size

Applications

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

Sensor Version	Parameter	Ex / Em	Measuring range	Detection limit
chl	Chlorophyll	470 nm / 685 nm	0 – 200 ppb	0.05 ppb
chl	Chlorophyll	470 nm / 685 nm	0 – 500 ppb	1 ppb
blue	Cyanobacteria	620 nm / 655 nm	0 – 200 ppb	0.5 ppb
blue	Cyanobacteria	620 nm / 655 nm	0 – 500 ppb	2 ppb
cdom	cdom (coloured dissolved organic mater)	375 nm / 460 nm	0 – 500 ppb	0.25 ppb
TRP	Tryptophan	275 nm / 360 nm	0 – 500 ppb	3 ppb

Technical specifications

Measurement technology	Light source	LED + Filter	
	Detector	Photodiode + Filter	
Measurement principle		Fluorescence	
Parameters		Chlorophyll a [$\mu\text{g/L}$]	
		Phycocyanin [$\mu\text{g/L}$]	
		cdom [$\mu\text{g/L}$]	
		Tryptophan [$\mu\text{g/L}$]	
Measurement range		See parameter list	
Detection limits		See parameter list	
Measurement accuracy		+/- (5 % + Detection limit)	
Turbidity compensation		No	
Data logger		No	
Reaction time T90		6 s (default)	
Smallest measuring interval		3 s (default)	
Interface	digital	RS-485, Modbus RTU	
	analog	4...20 mA (default)	
		0 – 5 V	
		0 – 10 V	
Power consumption	typical	max. 0.6 W	
	with activated analog interface	max. 1.1 W	
	Power-Down	max. 70 mW	
Power supply		12 – 24 VDC ($\pm 10\%$)	
Required supervision		≤ 0.5 h/month typical	
Calibration/ maintenance interval		24 months	
Warranty		1 year (EU & USA 2 years)	
Housing material		Stainless steel (1.4571/1.4404) or titanium (3.7035)	
Dimensions (L x Ø)		~ 162 mm x 48 mm	~ 6.4" x 1.9"
Weight	VA	~ 650 g	~ 1.4 lbs
	TI	~ 510 g	~ 1.1 lbs
Max. pressure	with Subconn	30 bar	~ 435 psig
	with fixed cable	3 bar	~ 43.5 psig
	in flow cell	1 bar, 2...4 L/min	~ 14.5 psig, 0.5 to 1 gpm
Protection type		IP68	NEMA 6P
Sample temperature		+ 2 .. + 40 °C	~ +36 °F to +104 °F
Ambient temperature		+ 2 .. + 40 °C	~ +36 °F to +104 °F
Storage temperature		- 20 .. + 80 °C	~ -4 °F to +176 °F
Inflow velocity		0.1...10 m/s	~ 0.33 fps to 33 fps