

## microFlu V2

37SX0XX1X



microFlu V2 fluorometers are submersible miniature fluorometers for highly precise and selective measurement of tryptophan, CDOM, blue-green algae, chlorophyll, tryptophan or BTX. 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 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 a	470 nm / 682 nm	0...200 µg/L	0.05 µg/L
blue	Phycocyanin	620 nm / 655 nm	0...200 µg/L	0.5 µg/L
cdom	CDOM (coloured dissolved organic matter)	375 nm / 460 nm	0...500 µg/L	0.25 µg/L
rho	Rhodamine	470 nm / 590 nm	0...200 µg/L	0,2 µg/L
fluo	Fluoresceine	470 nm / 590 nm	0...200 µg/L	0,05 µg/L
TRP	Tryptophan	275 nm / 360 nm	0...500 µg/L	3 µg/L
BT	BTX	255 nm / 305 nm	0...1000 µg/L	20 µg/L

## Technical specifications

<b>Measurement technology</b>	Light source	LED + Filter	
	Detector	Photodiode + Filter	
<b>Measurement principle</b>		Fluorescence	
<b>Parameters</b>		Chlorophyll a [ $\mu\text{g/L}$ ]	
		Phycocyanin [ $\mu\text{g/L}$ ]	
		CDOM [ $\mu\text{g/L}$ ]	
		Rhodamine [ $\mu\text{g/L}$ ]	
		Fluoresceine [ $\mu\text{g/L}$ ]	
		Tryptophan [ $\mu\text{g/L}$ ]	
		BTX [ $\mu\text{g/L}$ ]	
<b>Measurement range</b>		See table	
<b>Detection limits</b>		See table	
<b>Measurement accuracy</b>		$\pm$ (5 % + Detection limit); Variation BT: $\pm$ (10 % + Detection limit)	
<b>Temperature compensation</b>		No	
<b>Turbidity compensation</b>		No	
<b>Data logger</b>		No	
<b>Reaction time T90</b>		6 s (default)	
<b>Smallest measuring interval</b>		3 s (default)	
<b>Cross sensitivities</b>		All microFlu V2: Turbidity microFlu V2 TRP: dissolved oil, PAH, DOM	
<b>Interface</b>	digital	RS-485, Modbus RTU	
	analog	4...20 mA (default)	
		0–5 V 0–10 V	
<b>Power consumption</b>	typical	max. 0.6 W	
	with activated analog interface	max. 1.1 W	
	Power-Down	max. 70 mW	
<b>Power supply</b>		12–24 VDC ( $\pm$ 10 %)	
<b>Connection</b>		SubConn 8-pin or fixed cable with M12 connector	
<b>Required supervision</b>		$\leq$ 0.5 h/month typical	
<b>Calibration/ maintenance interval</b>		24 months	
<b>Warranty</b>		1 year (EU & USA 2 years)	
<b>Housing material</b>		Stainless steel (1.4571/1.4404) or titanium (3.7035)	
<b>Dimensions (L x Ø)</b>		~ 162 mm x 48 mm	~ 6.4" x 1.9"
<b>Weight</b>	VA	~ 650 g	~ 1.4 lbs
	TI	~ 510 g	~ 1.1 lbs
<b>System compatibility</b>		Tribox3, TriBox mini, Modbus RTU	

# microFlu V2

<b>Max. pressure</b>	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
<b>Protection type</b>		IP68	NEMA 6P
<b>Sample temperature</b>		+2 °C to +40 °C	~ +36 °F to +104 °F
<b>Ambient temperature</b>		+2 °C to +40 °C	~ +36 °F to +104 °F
<b>Storage temperature</b>		–20 °C to +80 °C	~ –4 °F to +176 °F
<b>Inflow velocity</b>		0.1–10 m/s	~ 0.33 fps to 33 fps