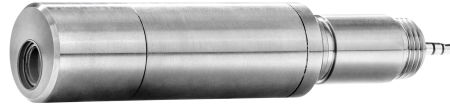




# picoFlu

XXXXXXX



SEPIA immersion sensors provide precise, modular and digital water analysis in any situation - in the laboratory, in the field, mobile and directly in the process of waterworks or sewage treatment plants. They offer maximum flexibility for water management, wastewater treatment, environmental laboratories, industrial processes and aquaculture and combine all measurement tasks in a single, modular, expandable system.

picoFlu is a submersible miniature fluorometer for the highly precise and selective measurement of chlorophyll a, phycocyanin in cyanobacteria, CDOM (Colored Dissolved Organic Matter), rhodamine or fluorescein.

As an immersion sensor in the **SEPIA series**, the picoFlu was specially developed for use with the TriOS multiparameter probe **FALCON**. Digital communication ensures safety and interference-free signal transmission from the sensor to the controller.

Thanks to the modular design of the SEPIA sensors, the picoFlu can be easily calibrated under laboratory conditions using the TriOS Lab Controller **LoLA**.

The system portfolio is further complemented by a TriOS Modbus handheld unit, which transmits the measured values from individual sensors directly to any Modbus-compatible device or controller.

## Advantages

- High accuracy and reliability
- Digital, modern and ergonomic design
- Calibrate in the lab - use in the field
- Cost-efficient due to modular design
- USB-C and Modbus for seamless integration
- Comparable results in the lab and in the field

## Applications

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

## Sensor versions

Sensor version	Parameters	Ex / Em	Measurement range	Detection limit
chl	Chlorophyll a	470 nm / 682 nm	0...200 µg/L	0.05 µg/L
		470 nm / 682 nm	0...500 µg/L	0.1 µg/L
blue	Phycocyanin	620 nm / 655 nm	0...200 µg/L	tbd*
cdom	CDOM	375 nm / 460 nm	0...500 µg/L	tbd*
rho	rhodamine	470 nm / 590 nm	0...200 µg/L	tbd*
fluo	fluorescein	470 nm / 590 nm	0...200 µg/L	tbd*

\* to be defined (still to be defined)

## Technical specifications

<b>Measurement technology</b>	<b>Light source</b>	LED + filter	
	<b>Detector</b>	Photodiode + filter	
<b>Measurement principle</b>		fluorescence	
<b>Parameters</b>		Chlorophyll a [ $\mu\text{g/L}$ ] or phycocyanin [ $\mu\text{g/L}$ ] or CDOM [ $\mu\text{g/L}$ ] or rhodamine [ $\mu\text{g/L}$ ] or fluorescein [ $\mu\text{g/L}$ ]	
<b>Measurement range</b>		see table	
<b>Detection limit</b>		see table	
<b>Measurement accuracy</b>		$\pm$ (5 % + detection limit)	
<b>Temperature compensation</b>		No	
<b>Turbidity compensation</b>		No	
<b>Data logger</b>		No	
<b>Response time (T90)</b>		2 s	
<b>Response time</b>		2 s	
<b>Smallest measurement interval</b>		1 s	
<b>Cross sensitivities</b>		Turbidity	
<b>Interface</b>		digital, SEPIA	
<b>Power consumption</b>		< 250 mW	
<b>Connection</b>		3.5 mm plug, 4-pole (TRRS)	
<b>Housing material</b>		titanium (3.7035)	
<b>Dimensions (L x Ø)</b>		112 mm x 24 mm	~ 4.4" x 0.95"
<b>Weight</b>		103 g (with o-ring)	~ 0.23 lbs
<b>System compatibility</b>		SEPIA compatible	

<b>Max. Pressure</b>	30 bar	~ 435 psi
<b>Degree of protection</b>	IP68	
<b>Sample temperature</b>	+0...+50 °C * +2...+40 °C (for specified measurement accuracy)	~ +32 to +122 °F * ~ +36 to +104 °F
<b>Ambient temperature</b>	+0...+50 °C * +2...+40 °C (for specified measuring accuracy)	~ +32 to +122 °F * ~ +36 to +104 °F
<b>Storage temperature</b>	-20...+60 °C	~ -4 to +140 °F
<b>Relative humidity</b>	0...95 %, non-condensing	
<b>Transportation conditions</b>	see storage temperature	
<b>Operating altitude</b>	max. altitude 2000 m (6562 ft)	

\* No ice crystals in the sample water

<b>Maintenance effort</b>	≤ 0.5 h/month typical	
<b>Calibration/maintenance interval</b>	24 months	
<b>Warranty</b>	1 year (EU & USA 2 years)	