



PhycoLabAnalyser

Early warning system for detection of cyanotoxins as well as flavours and odorous substances in raw water

The bbe PhycoLabAnalyser* (PhycoLA) offers the **simultaneous determination** of chlorophyll concentrations, transmission, and - as an option - the photosynthetic activity of microalgae in a 25 ml glass cuvette. Additionally, the PhycoLA measures the amount of **unbound phycocyanin (free PC)** which reflects the release of blue-green algae contents like toxins as well as flavours and odorous substances.

The chlorophyll and phycocyanin content is excited by coloured LEDs and allocated to the different algal classes. The PhycoLabAnalyser enables direct measurement without sample preparation by filtration or solvent. The fluorescence signals f_0 , f , and f_m are used to calculate the photosynthetic activity using the **Genty parameter method**. A **yellow substances (CDOM) correction** is also used to correctly calculate the total chlorophyll content. The device is virtually maintenance-free and very simple to operate thus saving both time and money.

Specifications

DESCRIPTION	VALUE
Measurands	Total chlorophyll [$\mu\text{g chl-a/l}$], green algae [$\mu\text{g chl-a/l}$], blue-green algae [$\mu\text{g chl-a/l}$], diatoms [$\mu\text{g chl-a/l}$], cryptophyceae [$\mu\text{g chl-a/l}$], yellow substances correction, unbound phycocyanin [$\mu\text{g /l}$], photosynthetic activity (Genty) – optional, transmission
Measuring range	0 – 200 $\mu\text{g chl-a/l}$, 0 – 50 $\mu\text{g free PC/l}$
Resolution	0.01 $\mu\text{g chl-a/l}$
Transmission	0 - 100 %
Turbidity	0 - 200 FTU
Weight	4.5 kg (without computer)
Dimensions (H x W x D)	152 x 340 x 295 mm
Protection class	IP 54
Voltage	230 V / 50 Hz; 110 V / 60 Hz
Power consumption	10 W
Sample temperature	0 to 40 °C
Sample volume	25 ml (cuvette)
Interface	RS232
Software	bbe++ software
Options	Genty, SDI-12 with bbe converter, 12 V adapter



FEATURES

- ▶ Quick, simple chlorophyll measurement with algal class differentiation
- ▶ Indicator for cyanotoxins as well as flavours and odorous substances by phycocyanin measurements
- ▶ Turbidity compensation up to 200 FTU
- ▶ Maintenance-free
- ▶ Easy to use
- ▶ Direct measurement without preparation
- ▶ Laptop included
- ▶ Integrated stirrer
- ▶ Splash-water proof
- ▶ PC operation with bbe software
- ▶ Simple data export
- ▶ Rugged transport case



APPLICATIONS

- ▶ Monitoring and assessment of water quality
- ▶ Reservoir monitoring
- ▶ Process tracking in waterworks
- ▶ Environmental and hygiene monitoring
- ▶ Chemical assessment
- ▶ Toxicity tests
- ▶ Analysis of contaminated sites
- ▶ Limnological work
- ▶ Research and teaching
- ▶ Oceanography
- ▶ Laboratory tests