



PhycoSens

Online determination of algae classes, chlorophyll and phycocyanin concentrations as well as photosynthetic activity

The bbe PhycoSens* is deployed in measuring stations and laboratories in which **online measurement of water quality** is required for rivers, reservoirs, dams and lakes as well as in drinking water production.

The instrument impresses due to its rapid analysis of chlorophyll and unbound phycocyanin (free PC) concentrations. The free colour pigments of the cyanobacteria are an important **indicator for cyanotoxins as well as flavours and odorous substances** in raw water. The online device can also measure the photosynthetic activity of microalgae and the transmission. The detection of different algal classes by excitation with coloured LEDs distinguishes this measuring instrument from its competitors. Part of the analysis is a yellow substances (CDOM) measurement to adjust the calculation of the total chlorophyll and phycocyanin contents. The **integrated cleaning unit** protect against growth problems during long-term measurement.

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 [$\mu\text{g /l}$], water temperature, photosynthetic activity – 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	25 kg
Dimensions (H x W x D)	530 x 660 x 25 mm
Protection class	IP 54
Voltage	230 V / 50 Hz; 110 V / 60 Hz
Power consumption	100 W
Sample temperature	0 to 40 °C
Sample volume	45 ml
Maintenance interval	> 7 days
PC	internal PC with touchscreen, Windows
Options	Genty determination, modem, up to zu 16 4-20mA and 16 digital outputs, SDI-12 with bbe converter



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
- ▶ Minimal maintenance
- ▶ Easy to use
- ▶ Monitoring of algae around the clock
- ▶ Direct measurement without preparation
- ▶ Integrated stirrer
- ▶ PC operation with bbe software
- ▶ RS232, LAN, USB



APPLICATIONS

- ▶ Online water quality assessment
- ▶ Reservoir monitoring
- ▶ Process tracking in waterworks
- ▶ Environmental and hygiene monitoring
- ▶ Chemical assessment
- ▶ Cooling and production water control
- ▶ Limnological work
- ▶ Research and teaching
- ▶ Oceanography
- ▶ Aqua culture monitoring