CHL 18

CHLOROPHYLL SENSOR CHL-30N

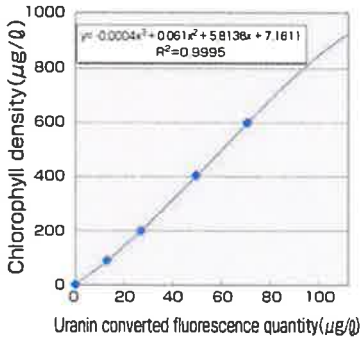
(Range : 0~200μg/ℓ)

Fluorescence strength sensor

◆Specifications

Product name	Chlorophyll Sensor
Model	CHL-30N
Measuring object	Chlorophyll a
Measuring range	0.0~200μg/ℓ (Uranine-equivalent fluorescence intensity)
Resolution	0.1μg/ℓ (Uranine-equivalent)
Display	LCD 3·1/2
Measuring principle	Fluorescence measurement method
Measuring wavelength	Excitation wavelength : 410~470nm Fluorescence wavelength : 600~700nm
Repeatability	Within ±2% (F.S.)
Measuring method	Measurement by immersion in sensor section Auto power off after 10 seconds

◆Correlation between uranine converted fluorescence quantity and chlorophyll



◆Measurement Overview

Chlorophyll is a chlorophyll found in algae (phytoplankton) and plants living in water bodies such as rivers, oceans, and lakes, and plays an important role in photosynthetic reactions.
Chlorophyll absorbs blue light and emits red light (fluorescence).
The CHL-30N utilizes this property by using a blue excitation light source in the light emitter and a detector that receives red fluorescence in the light receiver, allowing measurement of the fluorescence intensity generated according to the concentration of chlorophyll in living phytoplankton cells. It is suitable for culture tests and simple in-situ measurements of chlorophyll.
The fluorescence intensity varies depending on the type of plankton, etc. Therefore, when determining the absolute value of chlorophyll, it is necessary to determine the correlation with the acetone extraction measurement method, etc.

CHL 19

CHLOROPHYLL SENSOR CHL-5Z

(Range : 0~200μg/ℓ)

Measurement of fluorescence strength of phytoplankton's chlorophyll.

◆Specifications

Model	Main body : CHL-5Z Detector : CHLD-120Z (Cable length : 6m)
Measuring object	Chlorophyll a
Measuring range	0.0~200μg/ℓ (Uranine-equivalent fluorescence intensity)
Resolution	0.1μg/ℓ (Uranine-equivalent)
Display	LCD 3·1/2
Measuring principle	Fluorescence measurement method
Measuring wavelength	Excitation wavelength : 410~470nm Fluorescence wavelength : 600~700nm
Repeatability	Within ±2% (F.S.)
Measuring method	Measurement by immersion in sensor section
Power source	DC 6V (Alkali battery LR 03×4)
Standard component	Main body, Detector, Carrying case, Measuring container Alkali battery (LR 03×3)
Optional component	Uranine standard solution(200μg/ℓ) 250mℓ
Size / weight	Main body : Approx 75(W)×180(D)×38(H)mm / 290g Detector : Approx ϕ40×250mm / 500g

◆Usage

Environmental surveys of aquaculture farms, fisheries resources research, red tides and water-bloom in oceans, rivers, lakes, etc.

◆Correlation between uranine converted fluorescence quantity and chlorophyll