



SAMBAT

Monitoring Station Monitoring and water quality control

Fresh water and Sea environment

SAMBAT is an Autonomous Multiparameter Probe with Brush and Teletransmission of data.

This equipment is used to measure and record during several months the main physicochemical water parameters (to be chosen): conductivity for the calculation of salinity, temperature, depth, turbidity, Chlorophyll a, Phycocyanin, Phycoerythrin, dissolved oxygen, pH, Redox, and the detection of hydrocarbons.

SAMBAT uses a wiper to protect optical sensors from biofouling.

An operational probe:

- Monitoring station
- Fresh water or sea environment
- Fast wireless configuration thanks to a communication interface (Radio Data Pencil with a range of around 25 meters) connected to the USB port of a PC using Winmemo software.
- Transferring measured data by Email thanks to the integrated GSM modem (TI) or Modbus communication.
- Possibility to configure as data logger.
- Suitable for any type of support: very light buoy, ladder, stake, pontoon, etc.
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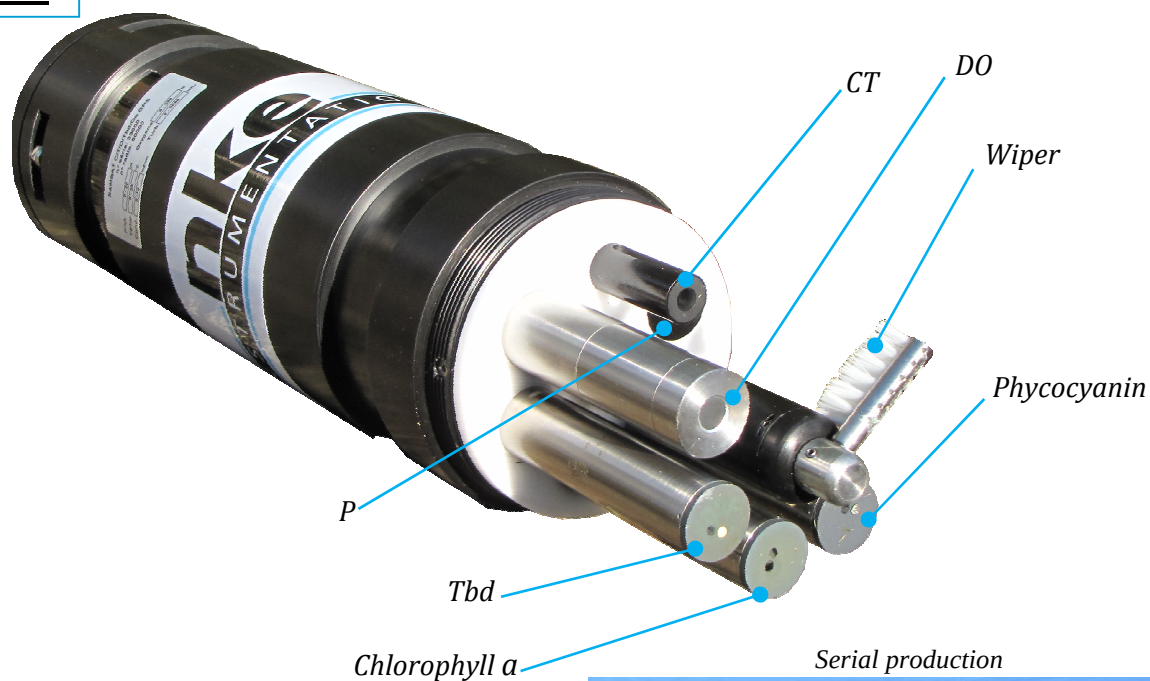


Fresh water and Sea environment monitoring

Technical features

Physicochemical parameters		Technical features		
		Range	Accuracy	Resolution
Depth (D)	TI ou Modbus	0 to 10m	< 0,03 m	< 0,00025m
	TI (data logger) ou Modbus	0 to 30m	< 0,15 m	< 0,00075m
	Modbus	0 to 50m	< 0,40 m	< 0,00125m
Temperature (T)		-5°C to +35°C	< 50m°C	1m°C to 10°C
Conductivity (C)		0 - 70 mS/cm	< 50 µS/cm	1,2 µS/cm
		0 - 2 mS/cm	< 20 µS/cm	0,04 µS/cm
Salinity (sea version)		2 - 42 PSU	< 0,1 PSU	< 0,001
Turbidity		0 - 30 NTU	<5%	< 0.05 NTU
		0 - 300 NTU	<5%	
		0 - 3000 NTU	Linearity 0.99 r2	
Dissolved oxygen (DO)	Concentration	0 - 20 mg/l	± 0,1 mg/l	0,01%
	Optical measurement by luminescence Saturation	0 - 200%	± 1%	0,01%
Fluorescence (Fluo) Chlorophyll A				
	Excitation wavelength: 460 nm	0 - 500 µgL	<5%	< 0,008 µgL
	Emission wavelength: 620-715 nm	0 -50 µgL	Linearity 0.99 r2	< 0,0008 µgL
	Detection wavelength: 300-1100 nm	0 - 5 µgL		< 0,00008 µgL
Fluorescence (Fluo) Phycocyanin				
	Excitation wavelength: 595 nm	0 - 2 000 000 Cml	<5%	< 31 Cml
	Emission wavelength: 670 nm	0 - 200 000 Cml	Linearity 0.99 r2	< 3 Cml
	Detection wavelength: 500-1100 nm	0 - 20 000 Cml		< 0,3 Cml
CDOM		0 - 1250 ppb	<5%	0,15 ppb
		0 - 5000 ppb	Linearity 0.99 r2	0,5 ppb
pH (pH)		0 - 14 pH	± 0,1 pH	0,0003 pH
REDOX		-1000 to +1000 mV	± 2 mV	0,1 mV
Hydrocarbons	Min. detection limit: 0.2 ppb***			
Crude oil	Linear range: 0-1,500 ppb***			
	***PTSA (1,3, 6, 8 - Pyrenetetrasulfonic Acid Tetrasodium Salt)			
Time	Internal clock with calendar (clock drift < 1mn/month)			
Sensors materials	SAMBAT fresh water	Stainless steel		
	SAMBAT sea water	Titanium		
Mechanical features	SAMBAT	Ø 11cm / length 42,5 cm / weight 3,6 kg		
	On buoy	Max dimensions: Ø 29 cm / length 175 cm / weight 11 kg		
Communication	GPRS: Integrated Transmission (TI) (max antenna cable length 6 m) Modbus			
Tracking	Integrated GPS (only with GPRS communication)			

SENSORS

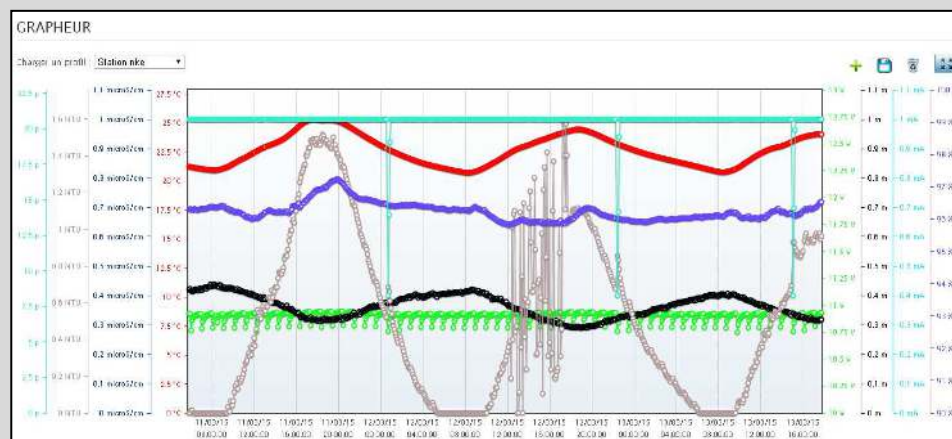


IN OPTION

- Detection of hydrocarbons: specific detection floating oils and chlorinated solvents
- Webdata: data processing



Webdata application:



Main practical applications:

- Automated measuring station
- Water quality control
- Environmental monitoring
- Civil engineering and harbour projects follow-up
- Salinity and turbidity measurement for hydrodynamic model settings
- Bathing waters monitoring



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