

FLOATING WATER ANALYZER MP1800C / MP1800C-MOD



- Fully automated in-situ water quality monitoring
- Stable floatation platform with high buoyancy
- Wide range of standard and option parameters
- Independently powered by solar with low power design
- Suitable at rivers or lakes



Project Profile

Project Name	Design, supply, install and maintain online water quality monitoring station at ZHAO old canal, TianJin Ecocity
Project Description	1 Floating Platform Water Quality Monitoring System (pH, temperature, DO, conductivity, turbidity, COD, TOC, ammonium, nitrate)
Customer	Sino-Singapore TianJin Ecocity Environment Bureau
Contract Period	2012-12-10 - 2013-12-10

Technical specification for standard parameters

Parameter	Measuring Principle	Range	Accuracy	Resolution	Reference Standard
Temperature	Thermistor	-5° - 50°C	±0.1°C	0.01°C	HJ/T91-2002
Optical DO	Fluorescence	0 - 25 mg/L	±1% or ±0.02 mg/L	0.01mg/L	N/A
Conductivity	Graphite Electrode	0 - 100 mS/cm	±1%	4 digits	HJ/T91-2002
pH	Glass Electrode	0 - 14 units	±0.2 units	0.01units	GB6920-86
Turbidity	Optical 90° Nephelometric	0 - 3000 NTU	[0-100NTU]< 1%	0.1NTU	USEPA180.1 EN ISO 7071
			[100-400NTU]< 3%		
			[>400NTU]< 5%		
Depth	Pressure	0 - 10m	±0.01m	0.01m	GB/T15966-1995
		0 - 25m	±0.025m	0.01m	
		0 - 50m	±0.05m	0.01m	
		0 - 100m	±0.1m	0.01m	
		0 - 200m	±0.2m	0.01m	
NH ₄ -N*	ISE with potassium compensation	0 - 20 mg/L-N	±3% or ±0.5 mg/L	0.02mg/L-N	HJ/T91-2002
COD*	UV Vis spectrometry 220nm -720nm	0 - 500 mg/L	±3%	0.6 mg/L	HJ/T91-2002

* Applicable for MP-1800C only.

Technical Specification For Option Parameters (Package A for MP1800C)

Parameter	Measuring Principle	Range	Accuracy	Resolution	Reference Standard
NO ₃	ISE	0 – 100 mg/L-N	±3% or ±0.5 mg/L	0.01mg/L-N	HJ/T91–2002
TOC	UV Vis spectrometry 220nm -720nm	0 – 150 mg/L	±3%	0.1 mg/L	N/A

Technical Specification For Option Parameters (Package B for MP1800C)

Parameter	Measuring Principle	Range	Accuracy	Resolution	Reference Standard
Chlorophyll a	Fluorescence	0.03 – 500 µg/L	±3%	0.01 µg/L	N/A
Blue Green Algae	Fluorescence	100 – 2M cells/mL	±3%	20 cells/mL	N/A

Technical Specification For Option Parameters (Package A for MP1800C-MOD)

Parameter	Measuring Principle	Range	Accuracy	Resolution	Reference Standard
Total Nitrogen	alkaline potassium persulfate digestion - UV spectro photometric method	0 - 5 ppm	0.1 ppm	0.05 ppm	GB3838–2002

Technical Specification For Option Parameters (Package B for MP1800C-MOD)

Parameter	Measuring Principle	Range	Accuracy	Resolution	Reference Standard
Total Phosphorus	ammonium molybdate spectro photometric method	0 - 1 ppm	0.02 ppm	0.01 ppm	GB3838–2002

Technical Specification For Option Parameters (Package C for MP1800C-MOD)

Parameter	Measuring Principle	Range	Accuracy	Resolution	Reference Standard
Cr ⁶⁺	Colorimetric	0 - 0.5 ppm	0.01 ppm	0.002 ppm	GB3838–2002
Nickel	Colorimetric	0 - 0.3 ppm	0.01 ppm	0.004 ppm	GB3838–2002
Cyanide	Colorimetric	0 - 0.3 ppm	0.01 ppm	0.004 ppm	GB3838–2002

Structure Parameters

Dimension	1550mm x 1550mm x 973mm
Material	Stainless Steel, HMW-HDPE
Weight	130 kg
Buoyance	Add-on 150 kg
Structure Safety	Surface Wind Force < 6

System Parameters

Power Source	Solar Power 240W
System Operation	14 days of continuous operation without sunlight
Operating Temperature	-20°C ~ 70°C
Safety Indication	IALA standard marine light
System Safety	Real-time anti-theft alert
Communication	Wireless GSM/GPRS/3G network
Data format	HJ/212-2005, GB/T16706-1996