

# Online Water Quality Analyzer

# Aqua2000-5P/6P



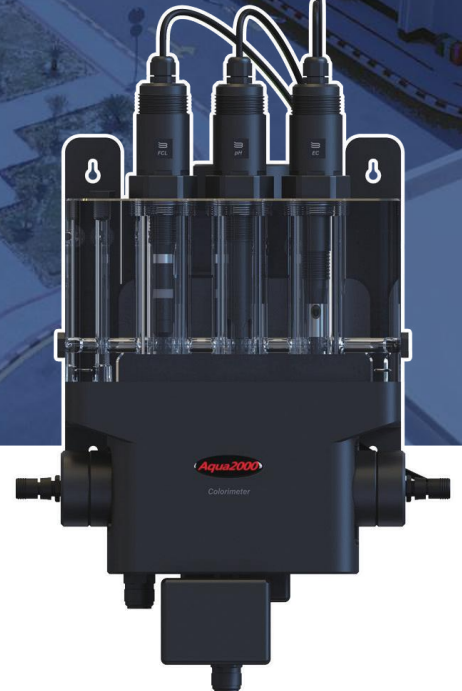
**Real Time  
Monitoring**

**5 or 6  
Parameters**

**Multiple items  
at Once**

Continuously measures and transmits each of the water quality data of tap water in real time. It is capable of measuring 5 or 6 parameters, namely turbidity, free chlorine, pH, electrical conductivity, water temperature, and chromaticity. (Option).

Because it measures multiple items at once, it is a good product for real-time monitoring from the end of water treatment to the supply process.



## Contact Us

WEB [www.bluesen.com/en](http://www.bluesen.com/en)

CALL +82-70-7722-7414

EMAIL [cjw@bluesen.com](mailto:cjw@bluesen.com)

# Aqua2000-5P/6P



## Control Unit (UCM)

---

CPU	92-bit micro process
Display	7inch touch TFT LCD
Power consumption	AC100/240V, 50/60Hz 34W
Output	Analog output (4~20mA) : 6 points Digital output (contact) : 4 points
Communication	RS 232, RS 485, Ethernet(option) / Download : USB, SD card(option)

## Turbidity

---

Method	90° Scattering Light
Light Source	Tungsten Lamp (EPA)
Range	0~100 NTU
Accuracy	±2%

## Free Chlorine

---

Method	Polarograph Amperometric
Type	pH & temp. compensation
Range	0 ~ 20 mg/L
Accuracy	±3%

## pH

---

Method	Composite glass electrode
Type	Temp. auto compensation
Range	pH 0 ~ 14
Accuracy	±1%

## Water Temperature

---

Method	PT1000Ω
Electrode material	Platinum thermometer
Range	0 ~ 70°C
Accuracy	±0.2°C

## Electrical Conductivity

---

Method	AC 2 polar method
Electrode material	Titanium
Type	Temp. auto compensation
Range	0 ~ 2000 μS/cm
Accuracy	±1%

## Chromaticity (Optional)

---

Method	Transmitted Light
Range	0 ~ 40 TCU
Resolution	0.01 TCU
Response Time	90% within 120secs

Low range Online Turbidimeter

# Aqua2000-TU90/UCX



Base on the  
EPA 180.1

Easy to  
Maintenance

90° scattered light measurement method based on the US EPA 180.1 standard. Equipped with a multi-bubble removal function, it enables real-time, continuous, and precise turbidity measurement of samples. Its natural gravity-flow sample structure, easy-to-operate detachable sensor and lamp module, secure waterproof design, and compact size ensure convenient installation and maintenance.



## Contact Us

WEB [www.bluesen.com/en](http://www.bluesen.com/en)

CALL +82-70-7722-7414

EMAIL [cjw@bluesen.com](mailto:cjw@bluesen.com)

Low range Online Turbidimeter

# Aqua2000-TU90/UCX



## Transmitter (UCX Controller)

---

Display	4.3" TFT LCD Touch Screen
Operating Temperature	-20 ~ 60 °C ( -4~140 °F )
Power & Consumption	100 ~ 240 VAC 50/60 Hz, 4.2W(unconnected)
Sensor Connection	2 sensors
Current Output	Optional 4 ~ 20mA DC * 1 or 3ch
Relay	Optional : 3 Points
Sensor Input	RS485 Mod-bus
Communication	Optional : RS 232C or RS 485
Data Download	USB 2.0
Water Proof	IP66
Material	Case : ABS
Dimension	153(w) × 150(h) × 140(d)mm
Weight	1.32 kg
Storage Temperature	-5 ~ 60 °C ( -23 ~ 140 °F, Original Package)

## TU90 (Sensor with Flow cell)

---

Method	US EPA 180.1 / 90° Scattered Tungsten Light
Measurement Range	0 ~ 100 NTU
Sample Temperature	2 ~ 60 °C (35.6 ~ 143.6 °F )
Flow Rate	0.1 ~ 0.8 L/min (0.026 ~ 0.211 gal/min) / Optimal : 0.3 L/min (0.079 gal/min)
Pressure	< 1 bar
Response Time	< 60 sec
Resolution	0.001 NTU
Accuracy	±2.0 %
Repeatability	±2.0 %
Calibration	1 point (sample) or 2 point (zero & sample) / Formazine Standard 180mL
Light Source	Tungsten Lamp
Communication	RS 485 Mod-bus
Material	Chamber : ABS, Sensor body : CPVC
Storage Temperature	-5 ~ 60 °C (-23 ~ 140 °F, Original Package)
Warranty/Maintenance (recommend)	Detector : 5 Years (Semipermanent use) / Lamp : 3 Years Cleaning : 3 Months Recommended / Calibration : 1 Year Recommended

# Online Free Chlorine Analyzer

## Aqua2000-FCL



Base on the  
EPA 334

2+ Years  
Sensor  
Lifespan

Easy to  
Maintenance



Reagent-free amperometric method based on the US EPA 334 standard. Since no waste liquid is generated, it provides an environmentally friendly solution. Sensor ensures usage of over 2 years. However, fluctuations in sample flow rate and pressure, as well as the presence of large amounts of bubbles, monochloramine, or chlorine dioxide in the sample, may affect the measurement.



### Contact Us

WEB [www.bluesen.com/en](http://www.bluesen.com/en)  
CALL +82-70-7722-7414  
EMAIL [cjw@bluesen.com](mailto:cjw@bluesen.com)

# Online Free Chlorine Analyzer

## Aqua2000-FCL



### Transmitter (UCX Controller)

---

Display	4.3" TFT LCD Touch Screen
Operating Temperature	-20 ~ 60 °C ( -4~140 °F )
Power & Consumption	100 ~ 240 VAC 50/60 Hz, 4.2W(unconnected)
Sensor Connection	2 sensors
Current Output	Optional 4 ~ 20mA DC * 1 or 3ch
Relay	Optional : 3 Points
Sensor Input	RS485 Mod-bus
Communication	Optional : RS 232C or RS 485
Data Download	USB 2.0
Water Proof	IP66
Material	Case : ABS
Dimension	153(w) × 150(h) × 140(d)mm
Weight	1.32 kg
Storage Temperature	-5 ~ 60 °C ( -23 ~ 140 °F, Original Package)

### FCL (Sensor with Flow cell)

---

Method	US EPA 334 / Reagentless Amperometric
Measurement Range	0 ~ 20 mg/L
Sample Temperature	0 ~ 45 °C (32~113 °F)
Flow Rate	0.2 ~ 1.2 L/min (0.052 ~ 0.317gal/min) / Optimal : > 0.5 L/min (0.132gal/min) ※ keep the stable flow of sample
Pressure	< 0.5 bar
Polarization Time	120 min (Initial Commissiong)
Response Time	< 90 sec
Resolution	0.001 mg/L (1ppb)
Accuracy	±3.0 % < pH 7.4, ±5.0% < pH 8.5
Repeatability	±2.0 %
Calibration	1 point (sample) or 2 point (zero & sample)
Communication	RS 485 Mod-bus
Material	Body : CPVC, Membrane Cap : CPVC
Storage Temperature	Electrode : -5 ~ 60 °C (-23 ~ 140 °F) Membrane Cap : -10~50 °C (-14~122 °F) / Gel Electrolyte : 5 ~ 50 °C (41~122 °F)
Warranty/Maintenance (recommend)	Electrode : 2 years / Membrane/Electrolyte : < 6 months (clean water) Calibration Interval : < 3 months (clean water)

Online pH/EC Analyzer

# Aqua2000-pH/EC

**Real Time  
Monitoring**

**3 in One**

Monitoring  
Control  
Recording

**Smart  
Sensors**

pH analyzer uses a glass electrode method to measure the hydrogen ion concentration and Electrical conductivity analyzer utilizes an AC two-electrode method to measure the electrical conductivity in a sample quickly and accurately in real-time and continuously. It can be used for process monitoring, control, and recording.

pH electrode, made of durable reinforced glass, minimizes the risk of breakage and EC electrode is made of highly durable, chemically resistant, and corrosion-resistant titanium ensures long-term use in clean samples.



[pH Digital Sensor]



[EC Digital Sensor]



## Contact Us

WEB [www.bluesen.com/en](http://www.bluesen.com/en)

CALL +82-70-7722-7414

EMAIL [cjw@bluesen.com](mailto:cjw@bluesen.com)

# Aqua2000-pH/EC



## pH Sensor Specification

---

Method	Glass Electrode Sensor
Measurement Range	0 ~ 14
Sample Temperature	0 ~ 80 °C (32 ~ 176°F)
Pressure	< 3 bar
Response Time	< 30 sec
Resolution	0.01
Accuracy	±2.0 % or ±0.03 pH
Repeatability	±2.0 %
Calibration	1 point (sample) or 2point (Buffer 4/7/10 pH)
Communication	RS485 Mod-bus
Material	Body : Acetal · ABS, Electrode : Tempered Glass
Storage Temperature	-5 ~ 60 °C (23 ~ 140 °F, Original Package)
Warranty/Maintenance (recommend)	Electrode : 1 year / Cleaning & Calibration < 3 months (clean water)

## Electrical Conductivity (TDS) Sensor Specification

---

Method	-Electrode AC
Measurement Range	0 ~ 2,000 µs/cm
Sample Temperature	0 ~ 100 °C (32 ~ 212°F)
Pressure	< 3 bar
Response Time	< 20 sec
Resolution	0.1
Accuracy	±1.0 %
Repeatability	±1.0 %
Calibration	1 point (sample) or 2point (Zero & Standard)
Communication	RS 485 Mod-bus
Material	Body : Acetal, Electrode : Titanium · Peek
Storage Temperature	-5 ~ 60 °C (-23 ~ 140°F, Original Package)
Warranty/Maintenance (recommend)	Electrode : >3 years (Semipermanent Use) / Cleaning < 3 months (clean water) Calibration < 6 months (clean water)

Online ORP/ODO/SS Analyzer

# ORP-d11 / ODO-d11 / SS-d11

**Advanced  
Sensing  
Methods**

**Continuous  
Precision**

**Industrial  
Durability**

Optical Dissolved Oxygen Sensor, ORP Sensor, and Suspended Solids Sensor respectively use luminescent optical, electrochemical, and  $90^{\circ} \times 180^{\circ}$  transmission-scattered light methods to measure key water quality parameters. They offer fast, accurate, real-time, and continuous measurements for process monitoring, control, and recording. Built with durable, chemical- and corrosion-resistant materials, these sensors ensure long-term stable operation. The Suspended Solids Sensor also maintains high accuracy even in colored samples.



[ORP-d11]



[ODO-d11]



[SS-d11]



## Contact Us

WEB [www.bluesen.com/en](http://www.bluesen.com/en)

CALL +82-70-7722-7414

EMAIL [cjw@bluesen.com](mailto:cjw@bluesen.com)

# ORP-d11 / ODO-d11 / SS-d11



## ORP Sensor Specification

Method	Inductive
Measurement Range	-2000~+2000mV
pH Range	0~12
Water Temperature	0 ~ 60°C (32~ 140°F)
Air Temperature	-20 ~ 60°C(-4~ 140°F)
Pressure	< 5bar
Accuracy	±0.1mV
Calibration	2points : Zero & Sample
Communication	RS485 Mod-bus
Material	Body : Acetal
Water Proof	IP68
Storage Temperature	-5 ~ 60°C (23~140°F Original Package)
Warranty/Maintenance (recommend)	Electrode >3 years (Semipermanent Use) Cleaning < 1 month *Auto-Cleaning System : Air or Water (optional) Calibration < 6 months in clean water

## ODO Sensor Specification

Method	Optical Detection
Light Source	LED
Measurement Range	0 ~ 50 mg/l 0~500% Saturation < 65°C)
Water Temperature	0 ~ 50°C (32~ 122°F)
Air Temperature	-5 ~ 60°C(23~ 140°F)
Pressure	< 5bar
Accuracy	0 ~ 150% <±1% of reading 150 ~ 300% <±3% of reading 300 ~ 500% <±15% of reading
Resolution/Sensitivity	<1mg/L : 0.001mg/l (1ppb) <15mg/L:0.009mg/l (9ppb) >20mg/L:0.01mg/l (10ppb)
Calibration	2points : Zero & 100% cal points
Communication	RS485 Mod-bus
Material	Body : Acetal
Water Proof	IP68
Storage Temperature	-5 ~ 60°C (23~140°F Original Package) Electrode >3 years (Semipermanent Use)
Warranty/Maintenance (recommend)	Cleaning < 1 month *Auto-Cleaning System : Air or Water (optional) Calibration < 6 months in clean water

## SS Sensor Specification

Method	90°×180° Scattered & Transmitted Light Detection
Light Source	LED
Measurement Range	0~20,000 mg/l (diatomaceous earth)
Water Temperature	0 ~ 50°C (32~ 122°F)
Air Temperature	-20 ~ 60°C(-4 ~ 140°F)
Pressure	< 5bar
Response Time	< 60sec (90% Saturation)
Resolution	1mg/l
Accuracy	±1%
Repeatability	±1%
Calibration	2points : Zero & Sample
Communication	RS485 Mod-bus
Material	Body : Acetal, Quartz glass
Water Proof	IP68
Storage Temperature	-5~60 °C (23~140°F, Original Package)
Warranty/Maintenance (recommend)	Electrode >3 years(Semipermanent Use without damage) Cleaning < 1 month *Auto-Cleaning System : Air or Water or Brush (optional) Calibration < 6 months in clean water

High range Online Turbidimeter

# TUR-d11/12

## 3 in One

Monitoring  
Control  
Recording

## Easy to Maintenance

## Industrial Durability



[TUR-d11/12]

Bluesen's High-Concentration Turbidity Sensor utilizes a  $90^\circ \times 180^\circ$  transmission-scattered light method to rapidly and accurately measure the high-concentration turbidity of a sample in real time and continuously. It can be used for process monitoring, control, and recording. The electrode is made of highly durable, chemical-resistant, and corrosion-resistant materials, ensuring long-term stable operation. In particular, it provides more accurate measurements even in samples that include color.



## Contact Us

WEB [www.bluesen.com/en](http://www.bluesen.com/en)

CALL +82-70-7722-7414

EMAIL [cjw@bluesen.com](mailto:cjw@bluesen.com)

High range Online Turbidimeter

# TUR-d11/12



## Specification

---

Method	ISO7027 : 90°×180° Scattered & Transmitted Light Detection
Light Source	LED
Measurement Range	0~4,000 NTU (Formazin Standard)
Water Temperature	-5 ~ 50°C (23 ~ 122°F)
Air Temperature	-20 ~ 60°C(-4 ~ 140°F)
Pressure	< 5bar
Flow Rate	< 2m/s
Response Time	< 60sec (90% Saturation)
Resolution	0.1NTU
Accuracy	±1% of reading
Calibration	1point : Zero, 2points : Sample
Communication	RS485 Mod-bus
Material	Body : Acetal, Quartz glass
Water Proof	IP68
Storage Temperature	-5~60 °C (23~140°F, Original Package)
Warranty/Maintenance (recommend)	Electrode >3 years(Semipermanent Use without damage) Cleaning < 1 month *Auto-Cleaning System : Air or Water or Brush (optional) Calibration < 6 months in clean water