PROBEST

# A TRUST-WORTHY

## Water sensors manufacturer

### PROBEST PROFESSIONAL ISO9001 MANUFACTURER

Focus on development of sensors technology water analysis since 2013!










**Fuzhou Probest Intelligent Technology Co., Ltd.**

# Company Brief Introduction



# Why choose us *PROBEST?*

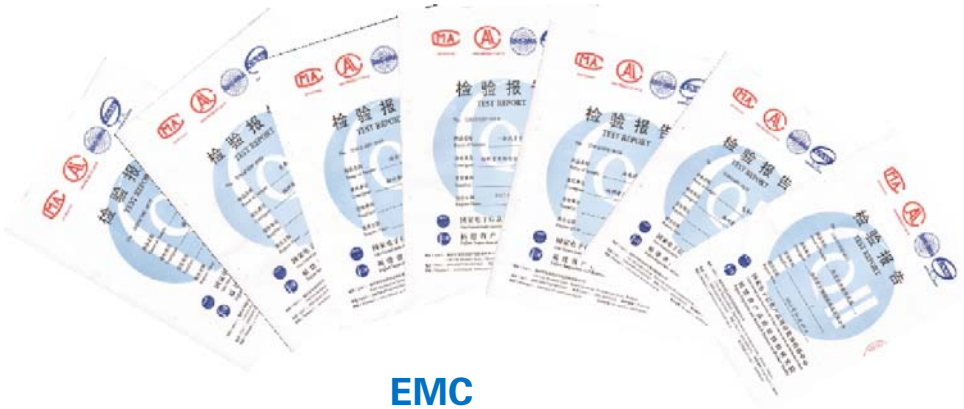
- A direct reliable ISO9001 authorized water analysis manufacturer.
- With strong 30+ professional R&D and 10+ QC team to ensure superior quality.
- Many patents and software copyrights to ensure products meet markets.
- Most important is our team, reliable boss, reliable PROBEST family.
- Worthy to be trusted to keep as long terms partners.



PROBEST
ISO9001 Certified

# Certifications & Honors



EMC






Patent Certificate






Software Copyright

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# MUC-200 Multi-parameter Controller

MUC-200 Multi-parameter controller can achieve on-line monitoring several different parameters by selecting corresponding sensors upon different request.The measured parameters temperature includes,pH,ORP,conductivity,DO,turbidity,sludge concentration,chlorophyll, blue-green algae and etc.Widely used in sewage plant, water plant,water station,surface water,industry and etc.




## Features

- Can connect any seven sensors of Probest company at the same time.Improve integration and reduce cost of operation and maintanance.
- Strong universality,all the digital-sensor-interfaces are universal,analog sensors configure different modules according to the different sensor types.
- Plug-and-play sensor,quick and easy installation and replacement of electrode.
- Simple operation and reliable result.Operation instructions on the interface can reduce error.
- Various data output modes：4~20mA,MODBUS RS485 and etc.
- Automatic message of error and warning,and uploading of warning signal.
- The controller supports wall mounting,panel mounting and clip pipe mounting.

## Technical Specifications

| | |
|---|---|
| **Display** | 7 inch touch screen with LED strong backlight,can operate in direct sunlight |
| **Power supply** | AC: 100-240VAC (50/60HZ) DC: 9-36VDC |
| **Output** | 5-way 4-20mA analog output,programmed response parameter and response value. |
| **Relay** | Setting 3-way relays, programmed response parameter and response value. |
| **Communication protocol** | Equipped with MODBUS RS485 communication function,real-time transmission of measured values |
| **Main Material** | PVC(Cover)； Aluminum alloy（Lower casing） |
| **Storage Temperature** | -20 - 70℃ |
| **Operation temperature** | -15 - 60℃ |
| **Protective rate** | IP65/ NEMA4X |
| **Advantages** | 7 sensors could be connected |
| **Remark** | Sensors for your choice, for reference only |
| **Dimension** | 260mm*200mm*132mm（L*W*H） |
| **Weight** | About 2.0KG |

# UNI-20 Universal Transmitter

UNI-20 Universal Transmitter has strong universality and can be connected freely to all digital sensors and analog sensors that researched and produced by Probest company. The measured parameters includes pH,DO,ORP,conductivity, SS,chlorophyll,blue-green algae, residual chlorine and etc. Meanwhile, UNI-20 can set single channel or dual channel configuration upon request.A transmitter can connect two sensors at the same time to reduce the cost of transmitter and installation space.




## Features

- Upgrade the original special transmitter of Probest to achieve universality.All the digital-sensor -interfaces are universal.The analog sensors configure different modules according to the different sensor types.
- Optional dual channel:select single channel or dual channel configuration upon request.
- Plug-and-play sensor,quick and easy installation and replacement of electrode.
- Simple operation and reliable result.Operation instructions on the interface can reduce error.
- LCD Visual Operation,Chinese /English bilingual navigation menu,rich and comprehensive content of interface.Various data output modes：4~20mA,MODBUS RS485 and etc.
- Automatic message of error and warning,and uploading of warning signal.
- The controller supports wall mounting,panel mounting and clip pipe mounting.

## Technical Specifications

| | |
|---|---|
| **Display** | 160*160 LCD |
| **Power supply** | AC：85-500VAC (50/60HZ) |
| | DC：9~36VDC |
| **Output** | 3-way 4-20mA |
| **Relay** | Setting three-way relays,programmed response parameter and response value. |
| **Communication protocol** | MODBUS RS485 |
| **Main material** | PA66+GF25+FR(Cover)；Aluminum alloy powder（Lower casing） |
| **Storage temperature** | -20- 70℃ |
| **Operation temperature** | -15 - 60℃ |
| **Protective rate** | IP65/ NEMA4X |
| **Dimension** | 145*125*162mm(L*W*H) |
| **Weight** | 1.35KG |

# PH/ORP Transmitter



UNI–20



Analog–to–digital conversion module

| Model | UNI-20 | PH/ORP conversion module |
|---|---|---|
| Measurement range | PH:0-14pH<br>ORP:±2000mV | PH:0-14pH<br>ORP:±2000mV |
| Temperature Compensation | PT1000 | PT1000 |
| Accuracy | PH：±0.1PH<br>ORP：±5mV | PH：±0.1PH<br>ORP：±5mV |
| Resolution | PH：±0.01PH<br>ORP：±1mV | Floating point type |
| Display | 160*160 LCD | / |
| Power supply | AC：85-500VAC (50/60HZ)<br>DC：9~36VDC | 12VDC |
| Output | 3-way 4-20mA | / |
| Relay | Setting three-way relays,programmed response parameter and response value. | / |
| Communication protocol | MODBUS RS485 | MODBUS RS485 |
| Main material | PA66+GF25+FR(Cover)；Aluminum alloy powde（Lower casing） | Aluminium alloy |
| Storage temperature | -20- 70℃ | -20- 60℃ |
| Operation temperature | -15 - 60℃ | 0- 60℃ |
| Protective rate | IP65/ NEMA4X | IP65 |
| Dimension | 145*125*162mm(L*W*H) | 95*47*30mm(L*W*H) |
| Weight | 1.35KG | 250G |

# PPH-500 pH Sensor



| | |
|---|---|
| **Main material** | Black Polypropylene ， Ag/Agcl Reference Gel |
| **Measurement range** | 0-14pH |
| **Temperature range** | 0-80℃ |
| **Pressure range** | ≤0.6Mpa |
| **Zero potential pH value** | 7±0.25pH（15mV） |
| **Slope** | ≥95% |
| **Internal Resistance** | ≤250MΩ |
| **Alkaline error** | 0.2pH(1mol/L Na+ pH14)（25℃） |
| **Response time** | ≤10 seconds (Reach 95% of the end value)(After stirring) |
| **Dimension** | Dia 30mm*Length195mm |
| **Weight** | Sensor：0.2KG |
| **Protective rate** | Sensor：IP68/NEMA6P |
| **Cable length** | Standard: 10 m, the maximum can be extended |

# PPH-100 PH Sensor



| | |
|---|---|
| **Materials** | PC body case |
| **Measurement range** | 0-14pH |
| **Applicable Temperature** | 0~45℃ |
| **Proof Pressure** | ≤0.6 MPa |
| **Zero potential** | 7pH±0.3 |
| **Slope** | ≥96%（25℃） |
| **Internal Resistance** | MΩ（25℃）150MΩ - 200MΩ |
| **Protection Class** | IP68/NEMA6P |
| **Dimension** | Diameter 27.4mm* Length 161mm |
| **Mounting Dimensions** | The top/bottom immobilization 3/4 "NPT taper thread |
| **Cable length** | 5m standard cable（ultimate length ≤20m） |

# POP-500 ORP Sensor



| | |
|---|---|
| **Main materials** | Black Polypropylene,Ag/Agcl Reference Gel |
| **Measurement range** | -2000mV ~ +2000mV |
| **Pressure range** | ≤0.6Mpa |
| **Zero potential mV value** | 86±15mV（25℃）(in pH 7.00 solution containing saturated quinhydrone) |
| **Range** | ≥170mV （25℃）(in PH 4 solution containing saturated quinhydrone) |
| **Response time** | ≤10 sec (Reach 95% of the end value)(After stirring) |
| **Dimensions** | Sensor：Dia30mm*L 195mm |
| **Weight** | Sensor：0.2KG； |
| **Protective rate** | Sensor：IP68/NEMA6P； |
| **Cable length** | Standard: 10 m, can be extended |

# POP-100 ORP Sensor



| | |
|---|---|
| **Main materials** | PC body case |
| **Measurement range** | -1000mV ~ +1000mV |
| **Pressure range** | ≤0.6Mpa |
| **Applicable Temperature** | 0~60℃ |
| **Slope** | ≥95%（25℃） |
| **Dimensions** | Sensor：Dia27.4mm*L 161mm |
| **Protective rate** | Sensor：IP68/NEMA6P； |
| **Cable length** | Standard:5 m, can be extended |

# PPH-500A Digital pH sensor

## Measurement Principle

The pH sensor uses a composite electrode in which a glass indicating electrode and a reference electrode are combined to measure the pH of the water.



## Features

- Power supply and output isolation design to ensure electrical safety.
- Power supply and communication chip built-in protection circuit, strong anti-interference ability.
- With a comprehensive protection circuit design, it can work reliably without additional equipment.
- The circuit part is designed inside the electrode, the environment is well tolerated, and the installation operation is easier.
- RS-485 transmission interface, MODBUS-RTU communication protocol, two-way communication, can receive remote commands.
- Output more electrode diagnostic information, more intelligent.
- Internal integrated memory, memory calibration and setting information can be memorized.

## Applications

- It is widely used in pH monitoring in water treatment, hydrological monitoring, wastewater treatment, swimming pools, fish ponds and fertilizers, chemicals, and biology.

## Technical Specifications

| | |
|---|---|
| **Sensor Main material** | Black Polypropylene，Ag/Agcl Reference Gel |
| **Measurement range** | 0-14pH |
| **Temperature range** | 0-80℃ |
| **Pressure range** | ≤0.6Mpa |
| **Zero potential pH value** | 7±0.25pH（15mV） |
| **Slope** | ≥95% |
| **Internal Resistance** | ≤250MΩ |
| **Alkaline error** | 0.2pH(1mol/L Na+ pH14)（25℃） |
| **Response time** | ≤10 seconds (Reach 95% of the end value)(After stirring) |
| **Power supply** | 12V DC |
| **Communication protocol** | MODBUS RS485 |
| **Storage temperature** | -15-60℃ |
| **Measuring temperature** | 0-60℃ |
| **Dimension** | Dia 30mm*Length195mm |
| **Water Protective rate** | Sensor：IP68/NEMA6P |
| **Cable length** | Standard: 10 m, the maximum can be extended to 200M |

# Conductivity Transmitter



UNI-20



Analog-to-digital conversion module

| Model | UNI-20 | Conductivity conversion module |
|---|---|---|
| Measurement range | 10-5000 us/cm | PH:0-14pH<br>ORP:±2000mV |
| Accuracy | ±1.5%(FS) | PH：±0.1PH<br>ORP：±5mV |
| Resolution | 0.01us/cm~0.01 ms/cm | Floating point type |
| Display | 160*160 LCD | / |
| Power supply | AC：85-500VAC (50/60HZ)<br>DC：9~36VDC | 12VDC |
| Output | 3-way 4-20mA | / |
| Relay | Setting three-way relays,programmed response parameter and response value. | / |
| Communication protocol | MODBUS RS485 | MODBUS RS485 |
| Main material | PA66+GF25+FR(Cover)；Aluminum alloy powde（Lower casing） | Aluminum alloy |
| Storage temperature | -20- 70℃ | -20- 60℃ |
| Operation temperature | -15 - 60℃ | 0- 60℃ |
| Protective rate | IP65/ NEMA4X | IP65 |
| Dimension | 145*125*162mm(L*W*H) | 95*47*30mm(L*W*H) |
| Weight | 1.35KG | 250G |

# PEC-500 Conductivity Sensor



| | |
|---|---|
| **Main materials** | Black polypropylene shell, glass platinum electrode |
| **Measurement range** | Conductivity： 10-5,000 us/cm ； Temperature：0-80℃ |
| **Pressure range** | ≤0.6Mpa |
| **Response time** | ≤10 sec (Reach 95% of the end value)(After stirring) |
| **Medium temperature** | 0~80℃ |
| **Communication Protocol** | MODBUS RS485 |
| **Dimensions** | Sensor：Dia30mm*L 195mm |
| **Weight** | Sensor：0.2KG； |
| **Protective rate** | Sensor：IP68/NEMA6P； |
| **Cable length** | Standard: 10 m, can be extended |

# PEC-100A Conductivity Sensor



| | |
|---|---|
| **Conductance cell** | Two plate |
| **Measurement Range** | 0.1-200 us/cm（Electrode constant k=0.1）<br>10-2,000 us/cm （ Electrode constant k=1.0）<br>20-20,000 us/cm （ Electrode constant k=10） |
| **Materials** | Main body material: 304L,<br>Measuring parts: 304L<br>(K=0.1 and k=1.0 )<br>Main body material: Polysulfone<br>Measuring parts: Platinum electrode<br>（k=10）<br>installation parts: ABS |
| **Temperature Compensation** | NTC10K |
| **Medium temperature** | 0~50℃ |
| **Pressure range** | 0.3Mpa |
| **Storage conditions** | Temperature: 0~60℃ |
| | Humidity: ≤90% RH （non-condensing） |
| **Protection Class** | IP68/NEMA6P |
| **Cable length** | 10m, can maximum be extended to 30m |
| **Dimension** | Diameter 13mm* Length below thread 59mm（K=0.1 and k=1.0）<br>Diameter 23.3mm* Length below thread 60.5mm<br>（K=10） |

# PEC-500A Digital Conductivity Sensor

## Measurement Principle



The conductivity sensor is a glass platinum electrode. In general, the voltage is in the form of a sine wave. Conductivity is determined by the ohmic formula based on voltage and current values.

## Features

- Power supply and output isolation design to ensure electrical safety.
- Power supply and communication chip built-in protection circuit,strong anti-interference ability.
- With a comprehensive protection circuit design, it can work reliably without additional isolation equipment.
- The circuit part is designed inside the electrode, the environment is well tolerated, and the installation operation is easier.
- RS-485 transmission interface, MODBUS-RTU communication protocol, two-way.
- communication, can receive remote commands.
- Output more electrode diagnostic information, more intelligent.
- Internal integrated memory, memory calibration and setting.
- information can be memorized after power off.

## Applications

- It is widely used in the monitoring of conductivity in water treatment, hydrological monitoring, wastewater treatment, swimming pools, fish ponds and fertilizers, chemicals, and biology.

## Technical Specifications

| | |
|---|---|
| **Main materials** | PPS Shell |
| **Measurement range** | 0.0~200.0 us/cm ; 0-2000us/cm ; 0.01-20.00ms/cm (optional) |
| **Pressure range** | 0-0.1 Mpa |
| **Accuracy** | ±3%F.S. |
| **Power supply** | 12V DC |
| **Communication Protocol** | MODBUS RS485 |
| **Measuring temperaturetemperature** | 0- 60℃ |
| **Dimension** | Dia26mm*L 166mm |
| **Protective rate** | Sensor：IP68/NEMA6P； |
| **Mounting thread** | 3/4" thread |
| **Cable length** | Standard：10M，the maximum can be extended 200M |

# PFDO-700 Dissolved Oxygen Online Analyzer

## Measurement Principle

PFDO-700 Dissolved Oxygen analyzer adopts fluorescence method to measure dissolved oxygen.The cap of the sensor is coated with a luminescent material. Blue light from an LED illuminates the luminescent chemical. The luminescent chemical instantly becomes excited and releases red light. The time and intensity of red light are inversely proportional to the concentration of oxygen molecules, So the concentration of oxygen molecules is calculated.



## Applications

DO online monitoring of different technological processes such as regulating reservoir,biochemical pool and effluent of sewage treatment plant.

DO online monitoring of water plant,surface water,industrial process water and aquaculture and etc.

## Features

- The sensor adopts new type of oxygen sensitive membrane,with NTC temperature compensated function,whose measurement result has good repeatability and stability.
- Won't produce oxygen consumption when measuring and no requirement of flow rate and stirring.
- Breakthrough fluorescence technology. ,without membrane and the electrolyte and almost not need maintenance.
- Built-in self-diagnosis function to ensure the accuracy of data.
- Factory calibration,not need calibration for a year and can carry out field calibration.
- Digital sensor,high anti-jamming capacity and far transmission distance.
- Standard digital signal output,can achieve integration and networking with other equipment without controller.
- Plug-and-play sensor,quick and easy installation.

## Technical Specifications

| | |
|---|---|
| **Measurement range** | DO：0-20 mg/L or 0-200% saturation； |
| | Temperature：0-45℃ |
| **Measurement Accuracy** | DO:±3%； Temperature：±0.5℃ |
| **Pressure range** | ≤0.3Mpa |
| **Calibration** | Air automated calibration,sample calibration |
| **Main material** | Body：SUS316L（fresh water），Titanium alloy（Ocean marine）；<br>Cover：PPS+glass fiber；Cable：PVC |
| **Power supply** | AC：85-500VAC (50/60HZ) DC：9~36VDC |
| **Output** | 3-way 4-20mA |
| **Relay** | Setting three-way relays,programmed response parameter and response value. |
| **Communication protocol** | MODBUS RS485 |
| **Storage temperature** | -15-65℃ |
| **Measuring temperature** | 0-45℃ |
| **Dimensions** | Sensor：Dia49.5mm*L 251.3mm |
| | Transmitter：145*125*162mm(L*W*H) |
| **Weight** | Sensor：1.4KG；Transmitter：1.35KG |
| **Protective rate** | Sensor：IP68/NEMA6P；Transmitter：IP65/ NEMA4X |
| **Cable length** | Standard:10m, the maximum may be extended to 100m |

# PDCL-400 Residual Chlorine/Chlorine Dioxide Online Analyzer

PDCL-400 residual chlorine/chlorine dioxide adopts advanced principle of constant voltage to measure residual chlorine//chlorine dioxide in water.The principle is adding a stable electric potential between polarized electrode and reference electrode to make different measured components produce different current intensity.The analyzer calculates the concentration of the measured component by collecting and analyzing current signal.





PDCL-400 residual chlorine/chlorine dioxide has simple structure,easy to clean and replace.Meanwhile,the electrode dosen't need to replace membrane and reagent when operating and the maintenance is simple to ensure the stability,reliability and accuracy of instrument for long-term working.

## Application

Residual chlorine/chlorine dioxide measurement of waste water and water treatment of water plant,drinking water distribution network,swimming pool and hospital and etc.

## Technical Specification

| | |
|---|---|
| **Principle** | Constant voltage method |
| **Measurement range** | 0-20 mg/L |
| **Calibration** | two-point calibration |
| **Sensitivity** | 78%-155% |
| **Temperature compensation** | Manual or automatic temperature compensation |
| **Temperature** | ℃2% / |
| **Power supply** | 220VAC |
| **Output** | 1-way isolated 4-20mA |
| **Communication** | MODBUS RS485 |
| **Flow rate** | 30 - 90 L/h (60 - 90L/h is optimum) |
| **Operating temperature** | 0-50℃ |
| **Electrode dimensions** | Dia 13mm*L 120mm |
| **Electrode materials** | 316LStainless steel shell |
| **Cable length** | Standard 5m cable |

# PDCL-400A Digital Residual Chlorine Online Analyzer

## Measurement Principle



The PDCL-400A digital residual chlorine/chlorine dioxide sensor uses advanced constant voltage principles to measure residual chlorine/chlorine dioxide in water. The method utilizes a stable potential between the polarized electrode and the reference electrode at which different measured components produce different current intensities. The meter calculates the concentration of the measured component by collecting and analyzing the current signal.

The PDCL-400A digital residual chlorine/chlorine dioxide sensor is simple in structure, easy to clean and replace, and requires no membranes and reagents to replace the electrode during maintenance.

## Features

- Easy clean and replace.
- Electrode no need to replace membrane and reagent when operating and the maintenance is simple to ensure the stability,reliability and accuracy of instrument for long-term working.
- Power supply and output isolation design to ensure electrical safety
- Power supply and communication chip built-in protection circuit, strong anti-interference ability
- With a comprehensive protection circuit design, it can work reliably without additional isolation equipment
- The circuit is built in the inside of the electrode, the environment is well tolerated, and the installation operation is easier.
- RS-485 transmission interface, MODBUS-RTU communication protocol, two-way communication, can receive remote commands
- Communication protocol is simple and practical, extremely convenient to use
- Output more electrode diagnostic information, more intelligent
- Internal integrated memory, memory calibration and setting information can be memorized after power off

## Applications

For chlorine water, chlorine dioxide dioxide measurement in swimming pools, drinking water distribution networks, swimming pools

## Technical Specifications

| | |
|---|---|
| **Principle** | Constant voltage method |
| **Measurement range** | 0-20 mg/L |
| **Calibration** | two-point calibration |
| **Sensitivity** | 78%-155% |
| **Temperature compensation** | Manual or automatic temperature compensation |
| **Temperature coefficient** | 2%/℃ |
| **Power supply** | 12V DC |
| **Communication protocol** | MODBUS RS485 |
| **Flow rate** | 30 - 90 L/h (60 - 90L/h is optimum) |
| **Operating temperature** | 0-50℃ |
| **Electrode dimensions** | Dia 13mm*L 120mm |
| **Electrode materials** | 316LStainless steel shell |
| **Cable length** | Standard 5M cable |

# PSS-800 SS

# Sludge Concentration Online Analyzer

## Features

- The sensor adopts dual-beam infrared scattered light. photometer detection technology and has good repeatability and stability.
- Use ISO7027 Standard Method (Infrared light scattering technique) to eliminate effects of sample color.
- Built-in self-diagnosis function to ensure the accuracy of data.
- Optional cleaning brush of automatic cleaning function to reduce the maintenance of sensor.
- Digital sensor,high anti-jamming capacity and far transmission distance.
- Standard digital signal output,can achieve integration and networking with other equipment without controller.
- Plug-and-play sensors,quick and easy installation.



## Applications

- Sludge concentration of technological process of sewage treatment plant.
- Online monitoring of industrial process water and Suspended solids (sludge concentration) of waste water treatment process.

## Measurement Principle

PSS-800 SS(Sludge Concentration )Sensor is based on the method of combination of infrared absorption scattered light.

## Technical Specifications

| | |
|---|---|
| **Measurement range** | 0.01-20000 mg/L，0.01-45000 mg/L，0.01-120000 mg/L |
| **Measurement accuracy** | Less than the ±5% of measured value. (Depending on the homogeneity of sludge) |
| **Pressure range** | ≤0.4Mpa |
| **Flow rate** | ≤2.5m/s、8.2ft/s |
| **Calibration** | Sample Calibration,Slope Calibration |
| **Main material** | Body：SUS316L（fresh water），Titanium alloy（marine）；<br>Cover：PVC；Cable：PVC |
| **Power supply** | AC：85-500VAC (50/60HZ) DC：9~36VDC |
| **Output** | 3-way 4-20mA |
| **Relay** | Setting three-way relays,programmed response parameter and response value. |
| **Communication protocol** | MODBUS RS485 |
| **Storage temperature** | -15-65℃ |
| **Measuring temperature** | 0-40℃ |
| **Dimensions** | Sensor：Dia 60mm*Length 256mm<br>Transmitter：145*125*162mm(L*W*H) |
| **Weight** | Sensor：1.65KG；Transmitter：1.35KG |
| **Protective rate** | Sensor：IP68/NEMA6P；Transmitter：IP65/ NEMA4X |
| **Cable length** | Standard:10m,the maximum may be extended to 100m |

# PTU-800 Turbidity Online Analyzer

## Measurement Principle

PTU-800 Turbidity Sensor is based on the method of combination of infrared absorption scattered light.Infrared light which the photosource sends out scattered by suspended particles in the sample.And finally converted to electrical signals by photoelectric detector and getting the turbidity valueof the sample after treatment by analog and digital signals.



## Features

- The sensor adopts dual-beam infrared scattered light photometer detection technology and has good repeatability and stability.
- Use ISO7027 Standard Method (Infrared light scattering technique) to eliminate effects of sample color.
- Built-in self-diagnosis function to ensure the accuracy of data.
- Optional cleaning brush of automatic cleaning function to reduce the maintenance of sensor.
- Digital sensor,high anti-jamming capacity and far transmission distance.
- Standard digital signal output,can achieve integration and networking with other equipment without controller.
- Plug-and-play sensors,quick and easy installation.

## Applications

- Turbidity online monitoring of water inlet, settling basin of water plant.
- Turbidity online monitoring of sewage plant,industrial process water and waste water treatment.

## Technical Specifications

| | |
|---|---|
| **Measurement range** | Turbidity：0.01-100 NTU，0.01－4000 NTU |
| **Measurement accuracy** | Less than±2% of the measured reading or ±0.1NTU,whichever is greater |
| **Pressure range** | ≤0.4Mpa |
| **Flow rate** | ≤2.5m/s、8.2ft/s |
| **Calibration** | Sample calibration,Slope calibration |
| **Main material** | Body：SUS316L（fresh water），Titanium alloy（marine）；<br>Cover：PVC；Cable：PVC |
| **Power supply** | AC：85-500VAC (50/60HZ) DC：9~36VDC |
| **Output** | 3-way 4-20mA |
| **Relay** | Setting three-way relays,programmed response parameter and response value. |
| **Communication protocol** | MODBUS<br>RS485 |
| **Storage temperature** | -15-65℃ |
| **Measuring temperature** | 0-40℃ |
| **Dimension** | Sensor：Dia 60mm*L 256mm<br>Transmitter：145*125*162mm(L*W*H) |
| **Weight** | Sensor：1.65KG；Transmitter：1.35KG |
| **Protective rate** | Sensor：IP68/NEMA6P；Transmitter：IP65/ NEMA4X |
| **Cable length** | Standard:10m,the maximum may be extended to 100m |

# PLTU-700 Low-Range Turbidity Online Analyzer

## Measurement Principle

Incident light of PLTU-700 Low-Range Sensor is produced by the tungsten light whose color temperature's absolute temperature is between 2200 degrees to 3000 degrees.Guiding the parallel light assembled by the tungsten light down into the water sample of the sensor,the light is scattered by suspended particles in water samples,and the scattered light that is with a ninety degree angle to the angle of incidence is received by the silicon photocell receiver in the water sample,measuring the turbidity by calculating the relationship with 90-degree scattered light and the incident beam.



## Features

- A scattering turbidity meter with continuous readings, designed for low-range turbidity monitoring.
- Stable data and good repeatability.
- Simple clean and maintenance.
- Plug-and-play sensors,quick and easy installation.

## Applications

- Turbidity online monitoring of filtration of water plant, product Water and direct drinking water system.
- Turbidity online monitoring of recirculating cooling water and filter water in all kinds of industrial production and water reuse system.

## Technical Specifications

| | |
|---|---|
| **Measurement range** | 0.001-100 NTU |
| **Measurement Accuracy** | ±2% of the reading or ±0.015NTU when the range is 0.001-40NTU,whichever is greater;±5% of the reading when the range is 40-100NTU |
| **Water flow** | 300ml/min≤X≤700ml/min |
| **Calibration** | Standard solution calibration,water ample calibration,zero calibration |
| **Pipe Fitting** | Inlet：1/4NPT；<br>Outlet：1/2NPT |
| **Main material** | Body：ABS + SUS316L； Seal: Butyl Cyanide Rubber； |
| **Power supply** | AC：85-500VAC (50/60HZ) DC：9~36VDC |
| **Output** | 3-way 4-20mA |
| **Relay** | Setting three-way relays,programmed response parameter and response value. |
| **Communication protocol** | MODBUS RS485 |
| **Storage temperature** | -15-65℃ |
| **Measuring temperature** | 0-45℃ |
| **Dimension** | Sensor：310 *210*410mm(L*W*H)<br>Transmitter：145*125*162mm(L*W*H) |
| **Weight** | Sensor：2.1KG；Transmitter：1.35KG |
| **Protective rate** | Sensor：IP68/NEMA6P；Transmitter：IP65/ NEMA4X |
| **Cable length** | Standard:3m,not recommend to extend. |

# PCH-800 Chlorophyll Online Analyzer

## Measurement Principle

The principle of PCH-800 Chlorophyll Sensor is using the characteristics of chlorophyll A who has absorption peaks and emission peaks in the spectrum.

## Features

- Based on the Fluorescent measuring target parameter of pigment,can be identified before affected by potential water bloom.
- Without extraction or other treatment, rapid detection to avoid the impact of long shelving the water sample.
- Digital sensor,high anti-jamming capacity and far transmission distance.
- Standard digital signal output,can achieve integration and networking with other equipment without controller.
- Plug-and-play sensors,quick and easy installation.



## Applications

- Chlorophyll online monitoring of water plant inlet,drinking water source and aquaculture and etc.
- Chlorophyll online monitoring of different water bodies,such as surface water,landscape water and seawater and etc.

## Technical Specifications

| | |
|---|---|
| **Measurement range** | 0-500 ug/L |
| **Measurement Accuracy** | ±5% of the signal level corresponding value of 1ppb Rhodamine WT Dye |
| **Pressure range** | ≤0.4Mpa |
| **Calibration** | Deviation value calibration,slope Calibration |
| **Requirements** | Suggest a multipoint monitoring for the distribution of Blue-Green Algaein water is very uneven.Water turbidity is below 50NTU. |
| **Main material** | Body：SUS316L（fresh water），Titanium alloy（marine）；Cover：PVC；Cable：PVC |
| **Power supply** | AC：85-500VAC (50/60HZ) DC：9~36VDC |
| **Output** | 3-way 4-20mA |
| **Relay** | Setting three-way relays,programmed response parameter and response value. |
| **Communication protocol** | MODBUS RS485 |
| **Storage temperature** | -15- 65℃ |
| **Measuring temperature** | 0- 45℃ |
| **Dimension** | Sensor：Dia37mm*L 220mm<br>Transmitter：145*125*162mm(L*W*H) |
| **Weight** | Sensor：0.8KG；Transmitter：1.35KG |
| **Protective rate** | Sensor：IP68/NEMA6P；Transmitter：IP65/ NEMA4X |
| **Cable length** | Standard:10m,the maximum may be extended to 100m |

# PBA-800 Blue-Green Algae Online Analyzer

## Measurement Principle

The principle of PBA-800 Blue-Green Algae Sensor is using the characteristics of cyanobacteria who has absorption peaks and emission peaks in the spectrum..

## Features

- Based on the Fluorescent measuring target parameter of pigment,can be identified before affected by potential water bloom.
- Without extraction or other treatment, rapid detection to avoid the impact of long shelving the water sample.
- Digital sensor,high anti-jamming capacity and far transmission distance.
- Standard digital signal output,can achieve integration and networking with other equipment without controller.
- Plug-and-play sensors,quick and easy installation.



## Applications

- Blue-green algae online monitoring of water plant inlet,drinking water source,aquaculture and etc.
- Blue-green algae online monitoring of different water bodies such as surface water.scenic water and etc.

## Technical Specifications

| | |
|---|---|
| **Measurement range** | 100—300,000cells/mL |
| **Measurement Accuracy** | ±5% of the signal level corresponding value of 1ppb Rhodamine WT Dye |
| **Pressure range** | ≤0.4Mpa |
| **Calibration** | Deviation value calibration,slope Calibration |
| **Requirements** | Suggest a multipoint monitoring for the distribution of Blue-Green Algaein water is very uneven.Water turbidity is below 50NTU. |
| **Main material** | Body：SUS316L + PVC；Cover：PVC；Cable：PVC |
| **Power supply** | AC：85-500VAC (50/60HZ) DC：9~36VDC |
| **Output** | 3-way 4-20mA |
| **Relay** | Setting three-way relays,programmed response parameter and response value. |
| **Communication protocol** | MODBUS RS485 |
| **Storage temperature** | -15-65℃ |
| **Measuring temperature** | 0-45℃ |
| **Dimension** | Sensor：Dia37mm*L 220mm<br>Transmitter：145*125*162mm(L*W*H) |
| **Weight** | Sensor：0.8KG；Transmitter：1.35KG |
| **Protective rate** | Sensor：IP68/NEMA6P；Transmitter：IP65/ NEMA4X |
| **Cable length** | Standard:10m,the maximum may be extended to 100m |

# MUC-200 Split Multi-Parameter Online Analyzer



## Features

- Up to 7 sensors could be connected to improve integration and reduce operation and maintenance costs.
- Universal, all digital sensor interfaces are common, analog sensors can be configured according to different sensor types
- Quick plug and work, electrode installation and replacement is quick and convenient.
- Easy use and reliable results, interface operation instructions can reduce operational errors.
- With 4~20mA, MODBUS RS485 multiple data output modes.
- pH, ORP, conductivity sensor easy cleaning, and the balance speed is fast, with good repeatability and stability.
- SS: Dissolved oxygen sensor adopts breakthrough fluorimetry technology, basically no maintenance, and comes with NTC temperature compensation function
- High-precision turbidity adopts 90° light scattering method, flow-through measurement, data is stable and reproducible;
- The turbidity, suspended solids/sludge concentration sensor uses the ISO7027 standard method (infrared light scattering technology) to eliminate the influence of sample color and optional cleaning brush function
- The chlorophyll sensor and the blue-green algae sensor are based on the fluorescence measurement target parameters of the pigment, which can be identified before potential blooms are affected, no need extraction or other treatment, rapidly detection to avoid the effects of leaving the water sample.
- UVCOD sensor uses 254nm spectral absorption coefficient SAC254 to reflect the content of soluble organic matter in water, and converts to COD value under certain conditions without reagent.
- Ammonia nitrogen sensor consists of an ammonium ion selective electrode, potassium ion (optional), pH electrode and temperature electrode to form an integrated sensor. These parameters can be mutually corrected and compensated for the measurement of ammonia nitrogen.

## Applications

- Online monitoring of multi-parameter water quality in surface water, drinking water sources and aquaculture; Online monitoring of water quality in wastewater treatment plants and industrial sectors;
- Marine sea water quality online monitoring.

## Technical Specifications

| | |
|---|---|
| **Display** | 7 inch touch screen with LED strong backlight,can operate in direct sunlight |
| **Power supply** | 100-240VAC (50/60HZ) |
| **Output** | 5-way 4-20mA analog output,programmed response parameter and response value. |
| **Relay** | Setting 4-way relays,programmed response parameter and response value. |
| **Communication protocol** | Equipped with MODBUS RS485 communication function,real-time transmission of measured values |
| **Main Material** | PVC(Cover)；Aluminum alloy（Lower casing） |
| **Storage Temperature** | -20 - 70℃ |
| **Operation temperature** | -15 - 60℃ |
| **Protective rate** | IP65/ NEMA4X |
| **Dimension** | 260mm*200mm*132mm（L*W*H） |
| **Weight** | About 2.0KG |

## Standard Electrode Parameters

| | | |
|---|---|---|
| **Temperature** | **Principle** | Thermistor method |
| | **Range** | 0℃~45℃ |
| | **Accuracy** | **±0.5℃** |
| **pH Sensor** | **Principle** | Glass electrode method |
| | **Range** | 0-14 pH |
| | **Accuracy** | ±0.1 pH |
| | **Dimension** | 30mm*195mm（Φ*L） |
| **ORP Sensor** | **Principle** | Glass electrode method |
| | **Range** | -2000mV ~+2000mV |
| | **Accuracy** | ±1.5%（FS） |
| | **Dimension** | 30mm*195mm（Φ*L） |
| **EC Conductivity Sensor** | **Principle** | Conductivity cell method |
| | **Range** | 10us/cm-2000 us/cm（K=1） |
| | **Accuracy** | ＜ ±1% or ± 1us/cm (bigger one) |
| | **Dimension** | 30mm*195mm（Φ*L） |
| **DO (Dissolved Oxygen)** | **Principle** | Fluorescence |
| | **Range** | 0 -20 mg/L；0-200% Saturation |
| | **Accuracy** | ±3% |
| | **Range** | 49.5mm*251.5mm（Φ*L） |
| **Turbidity Sensor** (High precision) (Flow formula) | **Principle** | Light scattering method |
| | **Range** | 0.001-100NTU |
| | **Accuracy** | ±2% or ±0.015NTU bigger (0.001-40 NTU ) ; ±5% (40-100 NTU ) |
| | **Dimension** | 310*210*410mm（L*W*H） |
| **Turbidity Sensor** (electrode method ) | **Principle** | Light scattering method |
| | **Range** | 0.01-100NTU；0.01-4000NTU |
| | **Accuracy** | ±4.6% or ±0.1NTU bigger |
| | **Dimension** | 60mm*256mm（Φ*L） |

| | | |
|---|---|---|
| **Suspended Solids Sensor SS Sensor Sludge Concentration** | **Principle** | Fluorescence |
| | **Range** | 0.01-20000mg/L；0.01-45000mg/L；0.01-120000mg/L |
| | **Accuracy** | ±5% |
| | **Dimension** | 60mm*256mm（Φ*L） |
| **Chlorophyll Sensor CH** | **Principle** | Fluorescence |
| | **Range** | 0-500 ug/L |
| | **Accuracy** | ±5% of the signal level corresponding value of 1ppb Rhodamine WT Dye |
| | **Dimension** | 37*220mm（Φ*L） |
| **Blue-green algae BA Sensor** | **Principle** | Fluorescence |
| | **Range** | 100-300,000cells/mL (ODM Available) |
| | **Accuracy** | ±5% of the signal level corresponding value of 1ppb Rhodamine WT Dye |
| | **Dimension** | 37*220mm（Φ*L） |
| **UVCOD Sensor** | **Principle** | Spectroscopy |
| | **Range** | 0~2000mg/l COD (2mm optical path) |
| | **Accuracy** | ±5% |
| | **Dimension** | 69*380mm（Diam*L） |
| **Ammonia nitrogen Sensor** | **Principle** | Ion selection |
| | **Range** | NH4N：0.1 to 1000 mg/L<br>K+：0.5 to 1000 mg/L （Optional）<br>PH：5-10 |
| | **Accuracy** | NH4N：±5 % or ± 0.2 mg/L bigger;<br>K+：±5 % or ±0.2 mg/L（Optional）<br>Temp：±0.5℃ pH：±0.1 pH |
| | **Dimension** | 55mm×340mm（Φ*L） |

# MP301 Multi-Parameter Analyzer

MP301 Multi-Parameter online analyzer is suitable for long-term field on-line monitoring.It can achieve the function of data reading,data storage and real-time online measurement of temperature，depth，pH，conductivity，salinity，TDS，turbidity，DO，chlorophyll and blue-green algae at the same time.




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## Features

- Optional self-cleaning system to get accurate data for a long time.
- Can see and collect data in real time used with platform software.Calibrate and record 49,000 times test data(Can record 6 to 16 probes' data a time ),can simply connected with the existing network for a simple combination.
- Equipped with all kinds of length of extension cables. These cables support internal and external stretch and 20 kg of bearing.
- Can replace the electrode in the field, maintenance is simple and quick.
- Can flexibly set the sampling interval time, optimize the work / sleep time to reduce the power consumption.

## Software Functions

- Operation software of Windows interface has the function of settings,online monitoring,calibration and Historical data download.
- Convenient and efficient parameters settings.
- Real-time data and curve display can help users intuitively obtain the data of measured water bodies.
- Convenient and efficient calibration functions.
- Intuitively and accurately understanding and tracking the parameters' changes of the measured water bodies in a certain period through the Historical data download and curve display.

## Application

- Multi-Parameter water quality online monitoring of rivers, lakes and reservoirs.
- Water quality online monitoring of drinking water source.
- Water quality online monitoring of ground water.
- Water quality online monitoring of sea water.

## Mainframe Physical Indicators

| | | | |
|---|---|---|---|
| **Power Supply** | 12V | **Measuring Temperature** | 0~50℃ （non-freezing） |
| **Power Dissipation** | 3W | **Storage Temperature** | -15~55℃ |
| **Communication protocol** | MODBUS RS485 | **Protection Class** | IP68 |
| **Size** | Diameter 90*Length 600mm | **Weight** | 3KG |

## Standard Electrode Parameters

| | | |
|---|---|---|
| **Depth (Pressure)** | Principle | Pressure-sensitive Method |
| | Range | 0-61m |
| | Resolution | 2cm |
| | Accuracy | ±0.3% |
| **Temperature** | Principle | Thermistor method |
| | Range | 0℃~50℃ |
| | Resolution | 0.01℃ |
| | Accuracy | ±0.1℃ |
| **pH sensor** | Principle | Glass electrode method |
| | Range | 0-14 pH |
| | Resolution | 0.01 pH |
| | Accuracy | ±0.1 pH |
| **ORP Sensor** | Principle | Glass electrode method |
| | Range | -1000mV ~+1000mV |
| | Resolution | 0.01mV |
| | Accuracy | ±0.1mV |
| **Conductivity sensor** | Principle | A pair of platinum gauze electrode |
| | Range | 1us/cm-2000 us/cm（K=1） |
| | | 100us/cm-100ms/cm（K=10.0） |
| | Resolution | 0.1us/cm~0.01ms/cm（Depending on the range） |
| | Accuracy | ±3% |
| **Turbidity sensor** | Principle | Light scattering method |
| | Range | 0-1000NTU |
| | Resolution | 0.1NTU |
| | Accuracy | ± 5% |
| **DO Probe** | Principle | Fluorescence |
| | Range | 0 -20 mg/L；0-20 ppm；0-200% |
| | Resolution | 0.1%/0.01mg/l |
| | Accuracy | ± 0.1mg/L＜8mg/l；± 0.2mg/L＞8mg/l |

| | | |
|---|---|---|
| **Chlorophyll sensor** | Principle | Fluorescence |
| | Range | 0-500 ug/L |
| | Resolution | 0.1 ug/L |
| | Accuracy | ±5% |
| **Blue-green algae sensor** | Principle | Fluorescence |
| | Range | 100-300,000cells/mL |
| | Resolution | 20 cells/mL |
| | Accuracy | ±5% |
| **Salinity Probe** | Principle | Converted by conductivity |
| | Range | 0~1ppt （K=1.0） |
| | | 0~70ppt（K=10.0） |
| | Resolution | 0.001ppt~0.01ppt Depending on range |
| | Accuracy | ±3% |
| **Ammonia nitrogen Sensor** | Principle | Ion selection |
| | Range | 0.1~100mg/L-N |
| | Resolution | 0.01mg/L-N |
| | Accuracy | ±10% or ±2mg/L |
| **Nitrate nitrogen Sensor** | Principle | Ion selection |
| | Range | 0.1~100mg/L-N |
| | Resolution | 0.01mg/L-N |
| | Accuracy | ±10% or ±2mg/L |
| **Chloride Sensor** | Principle | Ion selection |
| | Range | 0.5~1000mg/L |
| | Resolution | 0.01~1mg/L |
| | Accuracy | ±10% or ±2mg/L |
| **Fluoride Sensor** | Principle | Ion selection |
| | Range | 0.5~1000mg/L |
| | Resolution | 0.01~1mg/L |
| | Accuracy | ±10% or ±2mg/L |

# PUVNO3-900 Spectrometer Nitrate Online Analyzer

## Measurement Principle

NO3 absorbs at 210 nm UV light. When the Spectrometer NO3 probe is working, the water sample flows through the slit. When the light from the light source in the probe passes through the slit, part of the light is absorbed by the sample flowing in the slit, and the other light passes through the sample and reaches the other side of the probe. Calculate the concentration of nitrate.

## Features



- Spectrometer NO3 Probe direct immersion measurement without sampling and pre-processing;
- No chemical reagents, no secondary pollution;
- Short response time enables continuous measurement;
- The sensor has an automatic cleaning function that reduces maintenance.
- Sensor power supply positive and negative reverse connection protection
- Sensor RS485 A/B terminal is connected to the power supply protection
- Wireless data transmission module for optional

## Applications

- Drinking water / surface water / industrial production process water / sewage treatment, etc.,
- Continuously monitor the concentration of nitrate dissolved in water, especially for monitoring sewage aeration tanks, controlling denitrification process

## Technical Specifications

| | |
|---|---|
| **Measuring Range** | 0.1～100.0mg/L ( 1mm )<br>0.1～50.0mg/L ( 2mm )<br>0.1～25.0mg/L ( 5mm ) |
| **Accuracy** | ±5% |
| **Mini. detection limit** | 0.1 mg/L |
| **Resolution** | 0.1 mg/L |
| **Sludge compensation** | yes |
| **Sensor material** | SUS316L |
| **Calibration** | Standard calibration |
| **Power Supply** | AC：85-500VAC (50/60HZ) DC：9~36VDC |
| **Output** | 3-way 4-20mA |
| **Relay** | Setting three-way relays,programmed response parameter and response value. |
| **Communication protocol** | MODBUS RS485 |
| **Storage temperature** | -15-65℃ |
| **Measuring temperature** | 0-45℃ |
| **Dimensions** | Sensor：Diam69mm*Length 380mm<br>Transmitter：145*125*162mm(L*W*H) |
| **Weight** | Sensor：3.2KG；Transmitter：1.35KG |
| **Protective rate** | Sensor：IP68/NEMA6P；Transmitter：IP65/ NEMA4X |
| **Cable length** | Standard:10M,the maximum may be extended to 100m |
| **Suggested Backup spare parts** | PGP-UVNO3 : UVNO3 Sensor Scraper |

# PINH3-900 Ammonia Nitrogen sensor Online Analyzer

## Measurement Principle

The ammonia nitrogen concentration was measured by an ion selective electrode method. The ammonia nitrogen sensor is composed of an ammonium ion selective electrode, a potassium ion (optional), a pH electrode and a temperature electrode to form an integrated sensor. These parameters can mutually correct and compensate the measurement value of ammonia nitrogen, and at the same time realize multi-parameter measurement.



## Features

- sensor can dynamically compensate temperature and pH in samples
- Digital sensor, strong anti-interference ability, long transmission distance
- Standard digital signal output for integration and networking with other devices without a transmitter
- The sensor is easy to install on site, enabling plug and play
- The sensor power supply is reversed and protected. The sensor RS485 A/B terminal is connected to the power supply protection.
- Optional time display, data storage and historical data viewing
- Optional data wireless transmission module

## Applications

- Sewage treatment plants monitoring instruments and ammonia nitrogen values in aeration tanks monitoring instruments
- industrial processes and river water monitoring instruments .

## Technical Specifications

| | |
|---|---|
| **Measurement range** | NH4N：0.1 ~ 1000 mg/L;　K+：00.01 mg/l （optional）<br>PH：5-10;　Temp.:0-40℃ |
| **Resolution** | NH4N：0.01 mg/l;　K+：0.5 ~1000 mg/L （optional）<br>PH：0.01;　Temp.: 0.1℃ |
| **Accuracy** | NH4N：±5 % or ± 0.2 mg/L (bigger one); K+：±5 % or ±0.2 mg/L（optional）; Temp.: ±0.5℃　pH：±0.1 pH |
| **Response time** | ≤2 min |
| **Power supply** | 85-500VAC (50/60HZ) DC: 9~36VDC |
| **Output** | 3-way 4-20mA |
| **Relay** | Setting three-way relays,programmed response parameter and response value |
| **Communication protocol** | MODBUS RS485 |
| **Storage temperature** | 0-45℃ (Non-freezing) |
| **Operating temperature** | 0-40℃ (Non-freezing) |
| **Communication protocol** | MODBUS RS485 |
| **Dimension** | Sensor：Dia55mm*L 340mm |
| | Transmitter：145*125*162mm(L*W*H) |
| **Weight** | Sensor：1Kg；Transmitter：1.35Kg |
| **Protective rate** | Sensor：IP68/NEMA6P；Transmitter：IP65/ NEMA4X |
| **Cable length** | Standard 10M cable (Max could be extended to 100M) |

# PUVCOD-900 Spectrometer COD OnLine Analyzer

## Principle of Measurement

Based on the UV absorption reaction by organic matter, the PUVCOD-900 Spectrometer COD On-Line Analyzer uses the 254 nm spectral absorption coefficient SAC254 to measure the content of soluble organic compound in the water, and it can be converted to COD values under certain conditions. This method allows continuous monitoring without any reagents.



## Main Features

- Direct-immersion probe measurement without taking sampling and pretreatment;
- No chemical reagents, no secondary pollution;
- Short response time for continuous measurement
- The sensor has an automatic cleaning function to reduce maintenance time.

## Typical Application

- Continuous monitoring of organic load during sewage treatment, online real-time monitoring of influent and effluent water quality of wastewater treatment plants;
- Continuous on-line monitoring of surface water, industrial effluent, and fishery wastewater.

## Technical Specifications

| | |
|---|---|
| **Measuring Range** | 0~2000mg/l COD (2mm,optical pathop) |
| **Accuracy** | ±5% |
| **Measuring interval** | Min one minute |
| **Pressure** Range | ≤0.4Mpa |
| **Sensor material** | SUS316L |
| **Power Supply** | AC：85-500VAC (50/60HZ) DC：9~36VDC |
| **Output** | 3-way 4-20mA |
| **Relay** | Setting three-way relays,programmed response parameter and response value. |
| **Communication protocol** | MODBUS RS485 |
| **Storage temperature** | -15-65℃ |
| **Measuring temperature** | 0-45℃ |
| **Dimensions** | Sensor：Diam 69mm*Length 380mm<br>Transmitter：145*125*162mm(L*W*H) |
| **Weight** | Sensor：3.2KG；Transmitter：1.35KG |
| **Protective rate** | Sensor：IP68/NEMA6P；Transmitter：IP65/ NEMA4X |
| **Cable length** | Standard:10m,the maximum may be extended to 100m |

# PMI800-pH/ORP Portable pH/ORP Analyzer

## Measurement Principle

PMI800-pH Portable pH/ORP water testing Analyzer consists of a PMI-800 portable host operator and PPH-300 portable pH sensor (or POP-300 portable ORP sensor). The pH/ORP sensor uses a composite electrode with a combination of a glass indicator electrode and a reference electrode to measure the pH/ORP value of the water, with stable data and reliable performance.



## Features

- With IP66 protected portable manual operator
- Ergonomic curve design with rubber washers for hand-held operation, easy to grasp in wet conditions
- With USB interface, it can charge the built-in battery and export data through USB

## Applications

Widely used in portable monitoring of pH/ORP in aquaculture, sewage treatment, surface water, industrial and agricultural water supply and drainage, domestic water, boiler water quality, swimming pools, scientific research universities, etc.

## Technical Specification

| | |
|---|---|
| **Measuring Range** | pH：0-14 |
| | ORP：-1999~1999mV |
| | Temp.：0-80℃ |
| **Resolution** | pH：0.01/0.1 pH |
| | ORP：±200mV（Within：0.1mV Above：1mV) |
| | Temp.：0.1℃ |
| **Accuracy** | pH：±0.02 pH |
| | ORP：±0.1%FS |
| | Temp.：±0.5℃ |
| **Housing Material** | pH/ORP Probe Sensor：PE |
| | Portable Host：ABS+PC |
| **Storage Temp.** | 0-50℃ |
| **Operating Temp.** | 0-40℃ |
| **Size/Weight** | pH/ORP Sensor：Diam 12mm*Length120mm Weight:<0.1KG |
| | Portable Host：203*100*43mm(L*W*H)：Weight: 0.5KG |
| **Protective rate** | pH/ORP Sensor: IP68 Portable Host：IP66 |
| **Cable length** | Standard: 3M（Prolongable） |
| **Display** | 3.5” colorful LED, Adjustable when Backlight |
| **Data Storage** | 8G |

# PMI800-EC Portable EC Analyzer

## Measurement Principle

PMI800-EC portable conductivity analyzer consists of a PMI-800 portable host and a PEC-300 portable conductivity sensor. The measurement principle is to put two parallel plates into the solution to be tested, add a certain potential (usually a sine wave voltage) to both ends of the plate, and then measure the current flowing between the plates. Conductivity is determined by the OHM formula based on voltage and current values



## Features

- With IP66 protected portable manual operator
- Ergonomic curve design with rubber washers for hand-held operation, easy to grasp in wet conditions
- With USB interface, it can charge the built-in battery and export data through USB

## Applications

Widely used in water quality portable monitoring of pH/ORP in aquaculture, sewage treatment, surface water, industrial and agricultural water supply and drainage, domestic water, boiler water quality, swimming pools, scientific research universities, etc.

## Technical Specification

| | |
|---|---|
| **Measuring Range** | Conductivity：0-2000us/cm ； 2~19.99 mS/cm ； Temp.：0-50℃ |
| **Resolution** | 0.01us/cmor0.01ms/cm（base on range） Temp.：0.1℃ |
| **Accuracy** | Conductivity：±0.1%FS（base on range)Temp.：±0.5℃ |
| **Housing Material** | EC sensor：PE |
| | Portable Host：ABS+PC |
| **Storage Temp.** | 0-50℃ |
| **Operating Temp.** | 0-40℃ |
| **Size/Weight** | EC Sensor：Diam 12mm*Length120mm Weight:<0.1KG |
| | Portable Host：203*100*43mm(L*W*H)：Weight: 0.5KG |
| **Protective rate** | EC Sensor: IP68 Portable Host：IP66 |
| **Cable length** | Standard: 3M（Prolongable） |
| **Display** | 3.5” colorful LED, Adjustable when Backlight |
| **Data Storage** | 8G |

# PMI800-CH Portable Chlorophyll analyzer

## Measurement Principle

The PMI800-CH portable chlorophyll analyzer consists of a PMI-800 portable host and a PCH-300 portable chlorophyll sensor. The chlorophyll sensor utilizes the characteristic that the chlorophyll has an absorption peak and an emission peak in the spectrum. When the spectral absorption peak of chlorophyll emits monochromatic light and illuminates into the water, the chlorophyll in the water absorbs the energy of the monochromatic light, releasing another wavelength. The monochromatic light of the emission peak, the light intensity emitted by chlorophyll is proportional to the content of chlorophyll in the water.



## Features

- IP66 protection for portable host
- Ergonomic curve design with rubber washers for hand-held operation, easy to grasp in wet conditions for water testing.
- Factory calibration, no calibration required in one year, can be calibrated on site;
- Easy using and fast using in the site, Digital host & plug design with portable host.
- With USB interface, also can be charged the built-in battery and export data through USB interface

## Applications

Widely used in water quality portable monitoring of chlorophyll in waters such as aquaculture, surface water, scientific research universities and other fields.

## Technical Specification

| | |
|---|---|
| **Measuring Range** | 0.5-500 ug/L |
| **Accuracy** | ± 5 % of the corresponding signal level of 1 ppb Jordan WT dye |
| **linear** | R2 >0.999 |
| **Housing Material** | CH Sensor：SUS316L |
| | Portable Host：ABS+PC |
| **Storage Temp.** | 0-50℃ |
| **Operating Temp.** | 0-40℃ |
| **Size/Weight** | CH Sensor : Diam 24*Length207mm Weight:<0.25KG |
| | Portable Host：203*100*43mm(L*W*H)： Weight: 0.5KG |
| **Protective rate** | Portable Host: IP66， chlorophyll sensor: IP68 |
| **Cable length** | Standard: 3M（Prolongable） |
| **Display** | 3.5” colorful LED, Adjustable when Backlight |
| **Data Storage** | 8G |

# PMI800-BA Portable Blue-Green Algae Analyzer

## Measurement Principle

PMI800-BA portable BA blue-green algae consists of PMI-800 portable host and PBA-300 portable blue-green algae sensor. Utilizes the characteristic that cyanobacteria has absorption peaks and emission peaks in the spectrum. Monochromatic light emitting a specific wavelength is irradiated into water, and cyanobacteria in the water absorbs the energy of the monochromatic light, releasing monochromatic light of another wavelength, blue The light intensity emitted by green algae is proportional to the content of cyanobacteria in the water.



## Features

- IP66 protection for portable host
- Ergonomic curve design with rubber washers for hand-held operation, easy to grasp in wet conditions for water testing.
- Factory calibration, no calibration required in one year, can be calibrated on site;
- Easy using and fast using in the site, Digital host & plug design with portable host.
- With USB interface, also can be charged the built-in battery and export data through USB interface

## Applications

Widely used in water quality portable monitoring of Blue-Green Algae in waters such as aquaculture, surface water, scientific research universities and other fields.

## Technical Specification

| | |
|---|---|
| **Measuring Range** | 150—300,000cells/mL （base on range） |
| **Accuracy** | ± 5 % of the corresponding signal level of 1 ppb Jordan WT dye |
| **linear** | R2 >0.999 |
| **Housing Material** | BA Portable Blue-Green Algae sesor：SUS316L |
| **Portable Host:** | ABS+PC |
| **Storage Temp.** | 0-50℃ |
| **Operating Temp.** | 0-40℃ |
| **Size/Weight** | BA Sensor : Diam 24*Length207mm Weight:<0.25KG<br>Portable Host：203*100*43mm(L*W*H)：Weight: 0.5KG |
| **Protective rate** | Portable Host: IP66，chlorophyll sensor: IP68 |
| **Cable length** | Standard: 3M（Prolongable） |
| **Display** | 3.5” colorful LED, Adjustable when Backlight |
| **Data Storage** | 8G |

# PMI800-TU Portable Turbidity Analyzer

## Measurement Principle

PMI800-TU portable turbidity meter analyzer consists of PMI-800 operator and PTU-300 turbidity sensor. The infrared scattering light technology can eliminate the influence of the color of the sample, that is, the infrared light emitted by the light source will scatter when passing through the sample under test, and the intensity of the scattered light is proportional to the turbidity. The turbidity sensor is provided with a scattered light receiver in the 90° direction, and the turbidity value is obtained by analyzing the intensity of the set of scattered light.

## Features



- IP66 protection for portable host
- Ergonomic curve design with rubber washers for hand-held operation, easy to grasp in wet conditions for water testing.
- Factory calibration, no calibration required in one year, can be calibrated on site;
- Easy using and fast using in the site, Digital host & plug design with portable host.
- With USB interface, also can be charged the built-in battery and export data through USB interface

## Applications

Widely used in water quality portable monitoring of TU turbidity test in waters such as aquaculture, surface water, scientific research universities and other fields.

## Technical Specification

| | |
|---|---|
| **Measuring Range** | 0.1-1000 NTU |
| **Accuracy** | 0.1-10NTU，±0.3NTU |
| | 10-1000NTU，±5% |
| **Resolution** | 0.1NTU |
| **Response Time** | < 30 Seconds |
| **Calibration** | Standard calibration, water calibration |
| **Shell Material** | TU Sensor：SUS316L |
| | Host Shell：ABS+PC |
| **Storage Temp.** | 0-50℃ |
| **Operating Temp.** | 0-40℃ |
| **Size/Weight** | TU sensor size：Diam24*Length 135mm Weight:<0.25KG |
| | Portable Host：203*100*43mm(L*W*H)：Weight: 0.5KG |
| **Protective rate** | IP66 |
| **Cable length** | Standard: 3M（Prolong able） |
| **Display** | 3.5″ colorful LED, Adjustable when Backlight |
| **Data Storage** | 8G |

# PMI800-SS Portable suspended solids analyzer

## Measurement Principle

PMI800-SS portable suspension analyzer solids analysis consists of PMI-800 hand operator and PSS-800 suspension sensor. The SS sensor is based on a combined infrared absorption scatter ray method, and the ISO 7027 method can be used to continuously and accurately determine the suspended matter (sludge concentration). The suspended matter (sludge concentration) value was determined according to ISO 7027 infrared double scattering light technology without chromatic influence.



## Features

- IP66 protection for portable host .
- Ergonomic curve design with rubber washers for hand-held operation, easy to grasp in wet conditions for water testing.
- Factory calibration, no calibration required in one year, can be calibrated on site.
- Easy using and fast using in the site, Digital host & plug design with portable host.
- With USB interface, also can be charged the built-in battery and export data through USB interface.

## Applications

Widely used in water quality portable monitoring of SS Sludge Concentration analysis in waters such as aquaculture, surface water, scientific research universities and other fields.

## Technical Specifications

| | |
|---|---|
| **Measuring Range** | 0.1-20000 mg/L、0.1-45000 mg/L 、0.1-120000 mg/L（optional） |
| **Accuracy** | Less than ±5%（homogeneity of the sludge） |
| **Resolution** | 0.1mg/L |
| **Calibration** | Standard calibration, water calibration |
| **Shell Material** | SS sensor：SUS316L Operator：ABS+PC |
| **Storage Temp.** | 1-45℃ |
| **Operating Temp** | SS sensor size：Diam60*Length 256mm Weight:1.65KG |
| | Portable Host：203*100*43mm(L*W*H)：Weight: 0.5KG |
| **Protective rate** | Portable Host: IP66，SS sensor: IP68 |
| **Cable length** | Standard: 3M（Prolong able） |
| **Display** | 3.5″ colorful LED, Adjustable when Backlight |
| **Data Storage** | 8G |

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