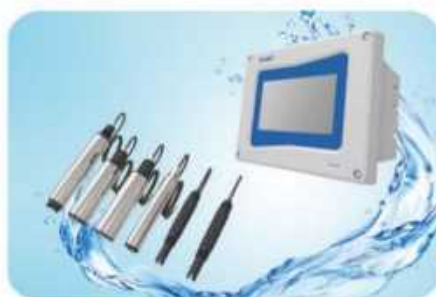




A TRUST WORTHY
Water sensors manufacturer!

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 50+ professional R&D, 10+QA and 16+ 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.

Note: Product information may be subject to change, and Probest has the final interpretation.



Certifications & Honors



EMC



Patent Certificate



Software Copyright

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MUC-200 Multi-parameter Controller

Introduction

MUC-200 multi-parameter transmitter can simultaneously monitor multiple different parameters according to customers' different needs, including Temperature / PH / ORP / Conductivity/Dissolved oxygen/Turbidity/Sludge concentration/Chlorophyll/ Blue-green algae / UVCOD / UVNO3 / Ionic ammonia nitrogen / Transparency / Residual chlorine and other parameters. It is widely used in water quality monitoring in wastewater treatment plants, waterworks, water stations, surface water, and industrial fields.



The transmitter software interface parameter display is adaptive, the operation interface menu is simple to set up, the user operation is convenient; the sensor is plug and play; the electrode installation and replacement is fast and convenient; various data transmission modes are optional, and the data storage and export are available.

Features

- ◇ Up to 7 sensors can be connected to improve integration and reduce operating and maintenance costs.
- ◇ High versatility, all digital sensor interfaces are common, and analog sensors can be configured with different modules
- ◇ according to different sensor types;
- ◇ Sensor plugs and operates, quick and convenient electrode installation and replacement;
- ◇ With 4~20mA, MODBUS RS485, wireless transmission and other data transmission methods;
- ◇ 7-inch color touch screen, easy operate, easy learn, reliable system and low maintenance;
- ◇ With data storage and curve display function, master the dynamics of monitoring parameters;
- ◇ Automatically reminds error and alarm information, and realizes alarm signal uploading;
- ◇ Have three levels of management authority;
- ◇ Wall mounting or panel mounting;
- ◇ With optional wireless data transmission module.

Technical Specifications

Display	7 inch touch screen with LED strong backlight, can operate in direct sunlight
Power supply	AC power supply: 85-500VAC; DC power supply:9-36VDC;
Output	Standard 8 channels 4-20mA analog output. Program setting response parameters and response values
Relay	Four-way relay, program setting response parameters and response values
Communication protocol	Standard MODBUS RS485 communication for real-time transmission of measured value. Optional wireless communication method: 4G:UDP/TCP NB:UDP
Main Material	PA66+GF25+FR (top cover); aluminum powder dusting (lower shell)
Storage Temperature	-20-70℃
Operation temperature	-15-60℃
Protective rate	IP65/ NEMA4X
Dimension	260mm*200mm*123.3mm (L*W*H)
Weight	About 2.0KG

UNI-20 Universal Transmitter

Introduction

The UNI-20 transmitter is highly versatile, and the existing digital and analog sensors from the company can be freely connected. Measurable parameters include pH, DO, ORP, Conductivity, Turbidity, SS, Chlorophyll, Blue-green algae, Residual chlorine, UVCOD, Ionic ammonia nitrogen, Nitrate nitrogen, Transparency and other parameters. UNI-20 can also choose single channel or dual channel configuration according to requirements. One transmitter can connect up to two sensors, reducing transmitter cost and installation space.



Features

- ◇ High versatility, all digital sensor interfaces are common, and analog sensors can be configured with different modules according to different sensor types;
- ◇ Optional dual channel: select single channel or dual channel configuration according to requirements;
- ◇ Realize sensor plug and play, quick and convenient electrode installation and replacement;
- ◇ Easy use, reliable results, interface operation instructions can reduce operational errors;
- ◇ LCD screen visualization operation, rich and comprehensive interface;
- ◇ With 4~20mA, MODBUS RS485 multiple data output modes;
- ◇ Automatically reminder error and alarm information, and realizes alarm signal uploading;
- ◇ The transmitter supports wall mounting/panel mounting/pinch installation;
- ◇ With time display, data storage;
- ◇ And historical data viewing function;
- ◇ Optional data wireless transmission module.

Technical Specifications

Display	160*160 LCD
Power supply	AC: 85-500VAC;DC: 9-36VDC
Output	3-way 4-20mA
Relay	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	IP66/ NEMA4X
Dimension	145*125*162mm(L*W*H)
Weight	1.35KG

PPH-500 pH Sensor

Technical Specifications



Main material	Black Polypropylene, Ag/Agcl Reference Gel
Measurement range	0-14pH
Temperature range	0-80°C (Non-freezing)
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°C)
Response time	≤10 seconds (Reach 95% of the end value)(After stirring)
Dimension	Dia. 28.7mm*Length195mm
Weight	Sensor: 0.2KG
Cable length	Standard: 10 m, the maximum can be extended to 20M

POP-500 ORP Sensor

Technical Specifications



Main materials	Black Polypropylene, Ag/Agcl Reference Gel
Measurement range	-2000mV- +2000mV
Pressure range	≤0.6Mpa
Temperature range	0-80°C (Non-freezing)
Zero potential mV value	86±15mV (25°C) (in pH 7.00 solution containing saturated quinhydrone)
Range	≥170mV (25°C) (in PH 4 solution containing saturated quinhydrone)
Response time	≤10 sec (Reach 95% of the end value)(After stirring)
Dimensions	Sensor: Dia28.7mm*L 195mm
Weight	Sensor: 0.2KG;
Cable length	Standard: 10 m, the maximum can be extended to 20M

PEC-500 Conductivity Sensor

Technical Specifications



Main materials	Black polypropylene shell, glass platinum electrode
Measurement range	Conductivity: 10-5000 us/cm; Temperature: 0-80°C
Pressure range	≤0.6Mpa
Response time	≤10 sec (Reach 95% of the end value)(After stirring)
Medium temperature	0-80°C (Non-freezing)
Dimensions	Sensor: Dia28.7mm*L 195mm
Weight	Sensor: 0.2KG;
Cable length	Standard: 10 m, the maximum can be extended to 20M

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	Shell: PPS; Cable: PVC; Electrode: Glass core
Measurement range	0-14pH
Resolution	0.01pH
Precision	±0.1pH
Repeatability	±0.1pH
Temperature range	-10-110℃
Temperature resolution	0.1℃
Temperature precision	0.5℃
Pressure range	0-0.1Mpa
Applicable Temperature	0-60℃ (Non-freezing)
Power supply	12VDC
Dimension	Dia. 26mm*Length166mm
Cable length	Standard: 10 m, the maximum can be extended to 200M

PPH-500D pH Sensor

Principle

pH describes the pH and basic properties of water. When $pH < 7.0$, it is acidic, when $pH = 7.0$, it is neutral, and when $pH > 7.0$, it is alkaline.

The pH sensor measures the pH of water using a composite electrode that combines a glass indicator electrode and a reference electrode. The potential of the internal reference electrode in the glass electrode is constant regardless of the pH of the solution to be measured. When the glass bubble is immersed in the test solution with changing H^+ concentration, the difference between the stable potential of the reference electrode and the potential generated by the glass ball will be read by the voltmeter and used as the measurement result.

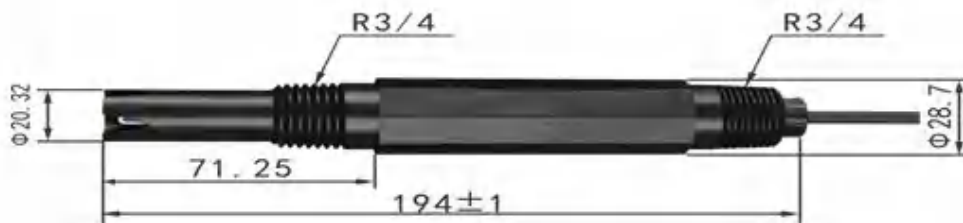
Data is stable, performance is reliable, and installation is simple. It is widely used in pH monitoring in sewage plants, water plants, water stations, surface water, aquaculture, industry and other fields. The technical specifications of the sensor are shown in Table 1.



Technical Specifications

Main material	POM shell
Measuring range	0-14pH
Temperature range	0-80°C (Not frozen)
Pressure range	≤0.6Mpa
Temperature	PT1000
Slope	≥95%
Response time	≤30 Seconds (at 95% of the end value) (after stirring)
Protection class	IP68/NEMA6P
Mounting thread	Upper and lower R3/4 pipe thread
Cable length	Standard: 10M, Max. extended to 50M

Size:



PPH-500B pH Online Analyzer

Introduction

PPH-500B is a digital PH sensor using RS485 communication interface and standard Modbus protocol. It adopts stainless steel corrosion-resistant casing, IP68 protection grade, built-in PT1000 temperature sensitive resistor and compensation algorithm, which has the advantages of high precision, long life and small drift, and is suitable for various harsh working environments.



Main Features

- ◇ Built-in PT-1000 temp. sensitive resistor, effective temperature compensation.
- ◇ Support replacement of electrode cores to reduce operation and maintenance costs.
- ◇ Industrial grade composite pH electrode, suitable for harsh working environment.
- ◇ Corrosion-resistant shell, waterproof grade IP68, can work underwater for a long time.
- ◇ RS485 communication interface, standard Modbus protocol, easy to integrate.
- ◇ Standard digital signal output, can achieve integration and networking with other equipment without controller.
- ◇ Built-in self-diagnosis function to ensure the accuracy of data.
- ◇ Digital sensor, high anti-jamming capacity and far transmission distance.
- ◇ Plug-and-play sensor, quick and easy installation.
- ◇ Sensor power supply positive and negative reverse connection protection.
- ◇ Sensor RS485 A/B terminal is connected to the power supply protection.
- ◇ With time display, data storage and historical data viewing function.
- ◇ Optional data wireless transmission module.

Application

- ◇ Surface water, waterworks, aquaculture
- ◇ Municipal sewage, industrial wastewater, sewage treatment, industrial process

Technical Specifications

Measuring range	0-14pH
Main material	316L Stainless steel + POM; Cable: PUR; Electrode: Glass core
Resolution	0.01pH
Repeatability	±0.1pH
Precision	±0.1pH
Temperature range	-15-100℃
Temp. resolution	0.1℃
Temp. accuracy	0.5℃
Electrode withstand voltage	0-0.1Mpa
Electrode Temp. resistance	0-45℃ (Non-freezing)
Communication protocol	MODBUS RS485
Power supply	AC: 85-500VAC ;DC: 9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed response parameter and response value.
Protective rate	Sensor: IP68/NEMA6P; Transmitter: IP66/ NEMA4X
Dimensions	Sensor: Dia34mm*L 252mm;Transmitter: 145*125*162mm(L*W*H)
Mounting thread	3/4 inch front and rear threads
Cable length	Standard cabel:10M, Max extended to 200M.

PPH-500 pH Online Analyzer

Introduction

PPH-500 pH sensor is a combination electrode combined precious metals indicator electrode with reference electrode. Firstly measure the potential difference of working battery made up of measuring electrode and reference electrode in the solution, then use linear relation of pH value of the measuring solution and potential of working battery to realize the on-line monitoring.



Main Features

- ◇ Good repeatability and stability.
- ◇ Simple cleaning and activation, quite high balance speed. The function of automatic temperature compensation.
- ◇ Optional analog-digital conversion module to achieve digital signal output, high anti-jamming capacity and far transmission distance.
- ◇ Optional analog-digital conversion module to achieve standard digital signal output (RS485), can achieve integration and networking with other equipment without controller.
- ◇ Quick and easy field installation, plug and play.
- ◇ Sensor power supply positive and negative reverse connection protection
- ◇ Sensor RS485 A/B terminal is connected to the power supply protection
- ◇ With time display, data storage and historical data viewing function;
- ◇ Optional data wireless transmission module.

Application

- ◇ PH online monitoring in technological process of inlet/outlet of sewage treatment plant, sedimentation basin and biochemical reaction basin and so on.
- ◇ PH online monitoring of municipal water supply industry, surface water and aquaculture and so on.
- ◇ PH online monitoring of industrial process water and in wastewater treatment process.

Technical Specifications

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	AC: 85-500VAC; DC: 9-36VDC
Output	3-way 4-20mA
Relay	Setting three-way relays, programmed response parameter and response value
Communication protocol	MODBUS RS485
Measuring temperature	0-80℃ (Non-freezing)
Dimension	Dia 28.7mm*Length195mm; Transmitter: 145*125*162mm(L*W*H)
Weight	Sensor: 0.2KG; Transmitter: 1.35KG
Cable length	Standard: 10 m, the maximum can be extended

PPH-500A pH Online Analyzer

Introduction

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..

Main 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.



Application

- ◇ 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	PPS Shell
Measurement range	0-14pH
Resolution	0.01pH
Precision	±0.1pH
Repeatability	±0.1pH
Temperature range	-10-110℃
Temperature resolution	0.1℃
Temperature precision	0.5℃
Pressure range	0-0.1Mpa
Power supply	AC: 85-500VAC;DC: 9-36VDC
Output	3-way 4-20mA
Relay	Setting three-way relays , programmed response parameter and response value
Communication protocol	MODBUS RS485
Applicable Temperature	0-60℃ (Non-freezing)
Dimension	Dia 26mm*Length166mm; Transmitter: 145*125*162mm(L*W*H)
Cable length	Standard: 10 m, the maximum can be extended

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.
- ◇ Communications, 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,
- ◇ It is widely used in the monitoring of conductivity in swimming pools
- ◇ It is widely used in the monitoring of conductivity in fish ponds
- ◇ The monitoring of conductivity in 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 (Automatic switch)
Accuracy	±2%F.S.
Resolution	Depending on the range 0.01ms/cm、0.1us/cm、1us/cm (Automatic switch)
Repeatability	±1%
Temperature compensation	0-60℃
Pressure range	0-0.1 Mpa
Electrode Temp. resistance	0-60℃ (Non-freezing)
Power supply	12VDC
Communication Protocol	MODBUS RS485
Dimension	Dia26mm*L 166mm
Protective rate	IP68 (Protective casing)
Mounting thread	3/4" thread
Cable length	Standard: 10M, the maximum can be extended 200m

PEC-500B Conductivity Online Analyzer

Introduction

PEC-500B digital quadrupole conductivity online analyzer, suitable for all kinds of harsh working environment. It has the advantages of high precision, long life and small drift. Widely used in surface water, municipal sewage, industrial wastewater, sewage treatment, waterworks, industrial process, aquaculture and other industries.



Main Features

- ◇ Corrosion-resistant shell, waterproof grade IP68, can work underwater for a long time.
- ◇ RS485 communication interface, the standard Modbus protocol, ease of integration.
- ◇ Standard digital signal output, can be realized in the case of no controller and other equipment integration and networking.
- ◇ Convenient and quick installation, easy plug and play.
- ◇ Time display, data storage and the function of historical data view.
- ◇ Optional data wireless transmission module.
- ◇ Controller can be hanging installation/panel/clip pipe installation.

Application

- ◇ Surface water, water plant, aquaculture.
- ◇ Municipal sewage and industrial wastewater, sewage treatment, industrial process.

Technical Specifications

Measuring range	10 us/cm -200 ms/cm (automatic switching)
Main material	316L Stainless Steel+POM
Resolution	0.1us/cm-1us/cm depends on measure range
Repeatability	±1% or 1us/cm bigger one
Accuracy	±1% or 1 us/cm bigger one
Temp. measuring range	0-100℃
Electrode voltage resistance	0-0.1Mpa
Electrode temp. resistance	0-45℃ (no icing)
Communication protocol	MODBUS RS485
Power supply	AC: 85-500VAC ;DC: 9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed response parameter and response value.
Protective rate	Sensor: IP68/NEMA6P; Transmitter: IP66/ NEMA4X
Dimensions	Sensor: Dia34mm*L 210mm;Transmitter:145*125*162mm(L*W*H)
Mounting thread	Top/bottom R3/4
Cable length	Standard: 10m, up to 200m

PFDO-800 Dissolved Oxygen Online Analyzer

Measurement Principle

PFDO-800 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.



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°C
Measurement Accuracy	DO: ±3% or ±0.3 mg/L, whichever is greater; Temperature: ±0.5°C
Resolution	0.01mg/L
Repeatability	±0.3mg/L
Pressure range	≤0.3Mpa
Calibration	Air automated calibration, sample calibration
Main material	Body: SUS316L (fresh water) ,Titanium alloy (Ocean marine) ; Cover: PPS+ glass fiber; Cable: PUR
Power supply	AC: 85-500VAC; DC: 9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed response parameter and response value.
Communication protocol	MODBUS RS485
Storage temperature	-15-60°C
Measuring temperature	0-45°C (Non-freezing)
Dimensions	Sensor: Dia49.5mm*L 251.5mm, Transmitter: 145*125*162mm(L*W*H)
Weight	Sensor: 1.4KG; Transmitter: 1.35KG
Protective rate	Sensor: IP68/NEMA6P; Transmitter: IP66/ NEMA4X
Cable length	Standard: 10m, the maximum may be extended to 100m

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.



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. Plug-and-play sensor, quick and easy installation.
- ❖ 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.

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.

Technical Specifications

Measurement range	DO: 0-20 mg/L or 0-200% saturation; Temperature: 0-45°C
Measurement Accuracy	DO:±3% or ±0.3 mg/L, whichever is greater ;Temperature: ±0.5°C
Resolution	0.01mg/L
Repeatability	±0.3mg/L
Pressure range	≤0.3Mpa
Calibration	Air automated calibration, sample calibration
Main material	Body: SUS316L (fresh water) ,Titanium alloy (Ocean marine) ; Cover: PPS+ glass fiber; Cable: PUR
Power supply	AC: 85-500VAC; DC: 9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed response parameter and response value.
Communication protocol	MODBUS RS485
Storage & Measuring temp	-15-60°C,0-45°C (Non-freezing)
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:IP66/ NEMA4X
Cable length	Standard:10m, the maximum may be extended to 100m

PFDO-500 Aquaculture Fluorescence Dissolved Oxygen Online Analyzer

Measurement Principle

PFDO-500 aquaculture dissolved oxygen online analyzer uses the fluorescence method to measure dissolved oxygen. The top of the sensor is covered with a layer of fluorescent material. When the blue light emitted by the sensor irradiates the fluorescent material, the fluorescent material is excited and emits red light. Because oxygen molecules can take away energy (Quenching effect), so the time and intensity of excited red light are inversely proportional to the concentration of oxygen molecules, and the concentration of dissolved oxygen in water can be obtained by calculation.



Features

- ❖ The sensor adopts a new type of oxygen-sensitive membrane, with its own NTC temperature compensation function, and the measurement results have good repeatability and stability
- ❖ No oxygen consumption during measurement, no flow rate/agitation requirements
- ❖ Breakthrough fluorescent technology, no membrane and electrolyte, basically no maintenance
- ❖ Built-in self-diagnosis function to ensure accurate data
- ❖ Factory calibration, one year without calibration, can be calibrated on site
- ❖ Digital sensor, strong anti-interference ability and long transmission distance
- ❖ Standard digital signal output, which can realize integration and networking with other equipment without transmitter

Applications

- ❖ DO online monitoring in aquaculture

Technical Specifications

Measuring range	DO: 0-20 mg/L or 0-200% saturation Temp.: 0-45°C
Measurement accuracy	DO: ±3% of measured value or ±0.3mg/l, greater one; temp.: ±0.5°C
Repeatability	±0.3mg/l
Resolution	0.01mg/l
Pressure range	≤0.1Mpa
Calibration	Air automatic calibration, sample calibration
Sensor material	SUS316L
Power supply	AC power: 85-500VAC; DC power: 9-36VDC
Relay	Three-way relay, program setting response parameters and response values
Protocol	MODBUS RS485
Temp	Storage: -15 to 60°C Operating: 0 to 45°C (Not frozen)
Size	Sensor: Dia.25.0mm*Length 127mm ;Transmitter:145*125*162mm(L*W*H)
Weight	Sensor:0.3KG; Transmitter:1.35KG With transmitter Output: 3Way 4-20mA
Protection class	Sensor:IP68/NEMA6P; Transmitter:IP66/ NEMA4X
Cable length	Standard 10M, Max could be extended to 100M

PDCL-400 Residual Chlorine/Chlorine Dioxide Online Analyzer

Measurement Principle

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 needn't 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 drinking water, tap water, swimming pool.

Technical Specification

Principle	Constant voltage method
Measurement range	0-2mg/L,0-20mg/L (optional)
Calibration	two-point calibration
Temperature compensation	Manual or automatic temperature compensation
Temperature	2%/°C
Power supply	AC:85-500VAC ;DC:9-36VDC
Output	3-way 4-20mA
Communication	MODBUS RS485
pH range of sample	5-8
Flow rate	30 - 60 L/h
Operating temperature	0-50°C (Non-freezing)
Electrode dimensions	Dia 13.5mm*L 178.5mm
Electrode materials	316LStainless steel shell
Cable length	Standard 5m cable, the maximum can be extended 20m

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.



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 measurement in swimming pools, drinking water distribution networks, swimming pools

Technical Specifications

Principle	Constant voltage method
Measurement range	0-2mg/L, 0-20mg/L (optional)
Calibration	two-point calibration
Temperature compensation	Manual or automatic temperature compensation
Temperature coefficient	2%/°C
Power supply	12V DC
Communication protocol	MODBUS RS485
Flow rate	30 - 60L/h
Operating temperature	0-50°C (Non-freezing)
Electrode dimensions	Dia. 13.5mm*L 178.5mm
Mounting Dimensions	PG13.5
Electrode materials	316LStainless steel shell
Cable length	Standard 5M cable

PDCL-500M Residual Chlorine or Chlorine Dioxide Online Analyzer



Introduction

PDCL-500M Residual Chlorine or Chlorine Dioxide online analyzer, using photopolymer film and silicon crystal semiconductor as conduction elements, built-in chlorine and temperature probe, microelectronic components are injected and packaged by MEMS technology. As the concentration of free chlorine or chlorine dioxide in the water sample changes, the sensor generates different current intensity, which is processed by the regulator and signal amplifier, and converted into the standard MODBUS RS485 signal.

The use of the sensor does not need to change the reagent, simple maintenance, to ensure the long-term stability of the instrument reliability and accuracy.

Application

◇ Using in waterworks, rural drinking water, water stations, secondary water supply and other fields.

Technical Specification

Measurement content	HClO、ClO ₂
Measuring system	Micro-electronic MEMS technology, special membrane structure
Measuring range	0-2mg/L, 0-5mg/L
Measuring accuracy (25℃ ,	0-2mg/L: ≤2mg/L, ±5% or ±0.03mg/L of test value (bigger one)
Resolution	0.01mg/L
Polarization time	For the first time, the chlorinated water is first routed for 2 hours and then
Response time	Less than 30s after polarization
Mini. conductivity	≥100μS /cm, Can not be used for ultra-pure water
Operating temp.	0~40℃ (no condensation)
Temp. compensation	PT1000, Built-in integrated automatic compensation
Max. pressure	10bar
Recommended flow	≥10L/h, (in the supporting circulation tank)
PH range	pH=5-9, Below 5 will damage the membrane head
Power	AC: 85-500VAC; or DC: 9~36VDC
Output	3 way 4-20mA
Relay	Three-way relay, program setting response parameters and response values
Communication protocol	MODBUS RS485
Cable length	Standard: 3M, customizable
Probe weight	About 210g
Thread size	NPT 3/4

PDCL-600 Membrane Method Residual Chlorine or total chlorine or chlorine dioxide analyzer

Measurement Principle

PDCL-600 Membrane method residual chlorine\total chlorine\chlorine dioxide electrode is a composite digital electrode using membrane amperometric method. The detection part adopts special permeable membrane technology, which is resistant to chemical (mainly surfactant-based) interference and reduces pH dependence. The sensor is not limited by water quality conditions, and can be used in tap water, swimming pools, medical wastewater, sewage treatment, industrial wastewater and other environments. The sensor has fast response, stable performance, low cost and low maintenance, providing users with reliable and accurate data.



Features

- ◇ Basically not affected by PH;
- ◇ Internal processing of digital signal data, free from electromagnetic interference;
- ◇ Stable work and fast response;
- ◇ No need for zero calibration;
- ◇ Low cost and less maintenance work

Applications

- ◇ Conventional drinking water, tap water, swimming pool water, aquaculture, seawater
- ◇ Medical wastewater, medical sewage. Dosing equipment, circulating water, cooling water

Technical Specifications

Measurement range	0-2mg/L;0-20mg/L;0.5-200mg/L
pH range	pH value: 4-9
Conductivity range	10μS/cm-50mS/cm (Seawater)
Calibration	Air automated calibration, sample calibration
Flow rate	In the flow cell:250~500ml/min
Slope drift	About -1% per month
Response time	T90:About 2minites (Up to 90% of the measured value)
Zero calibration	No need
Slope calibration	On the measuring device, analytical determination by the DPD-1 method
Temp. compensation	Integrated automatic temperature compensation
Material	PVC-U, stainless steel, microporous hydrophilic membrane,
Power supply	AC power supply:85-500VAC,DC power supply: 9-36VDC
Output	3 channels 4-20mA
Relay	Three-way relay, program setting response parameters and value
Operating temp.	Measuring water temperature: 0-45℃ (no condensation in water) Room temp.: 0-55℃
Output signal	MODBUS RS485
Size	Sensor: diameter 25mm * length 205mm, Transmitter: 145*125*162mm (L*W*H)
Cable length	5m cable

PDO3-600 On-line Ozone O₃ Water Quality Analyzer

Introduction

PDO3-600 ozone electrode is a 2-electrode measurement system using the coating method. The detection part adopts a special permeable membrane technology, which has the characteristics of resisting chemical (mainly surfactant interference and reducing pH dependence).

Fast speed, stable performance, low cost and low maintenance, providing users with reliable and accurate data.



Features

- ◇ Basically not affected by PH;
- ◇ Internal processing of digital signal data, free from electromagnetic interference;
- ◇ Stable work and fast response;
- ◇ Low cost and less maintenance.

Applications

- ◇ Tap water, drinking water, swimming pool water, medical wastewater, sewage, industrial wastewater, seawater, etc.

Technical Specifications

Measurement range	0-20mg/L
Precision (Calibrated at 25°C, pH=7.2, potable water, full scale repeat)	Range: 0-2ppm: Less than 1% Range: 2-20ppm: Less than 3%
PH Range	pH: 2-11
Flow rate	In the flow cell: 250-500ml/min, the flow rate has little effect on it
Response time	T90: about 15s (up to 90% of the measured value)
Slope calibration	On the measuring device, determined by analytical methods
Temp compensation	Integrated automatic temp. compensation
Material	PVC-U, Semipermeable membrane, ABS
Power supply	AC: 85-500VAC;DC: 9-36VDC
Output	3Way 4-20mA
Relay	Three-way relay, program setting response parameters and response values
Operating temp	Measuring water temp.: 0-45°C (no condensation in water) Ambient room temp.: 0-55°C
Output signal	Digital signal (MODBUS RS485 with isolation)
Size	Sensor: Diameter 25mm * length 220mm Transmitter: 145*125*162mm (L*W*H)
Cable length	Standard 5m cable, can be extended up to 100m

PSS-800 SS (Sludge Concentration) On-line Analyzer

Measurement Principle

PSS-800 SS (Sludge Concentration) Sensor is based on the method of combination of infrared absorption scattered light. Infrared light emitted by the light source is scattered by the suspended particles in the sample, and finally converted into an electrical signal by a photodetector, and the sludge concentration of the sample is obtained after analog and digital signal processing.



Features

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

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.

Technical Specifications

Measurement range	0.01-20000 mg/L, 0.01-45000 mg/L, 0.01-120000 mg/L
Measurement accuracy	Less than the $\pm 5\%$ of measured value. (Depending on the homogeneity of sludge)
Resolution	0.01-1mg/L base on range
Repeatability	$\pm 2\%$
Pressure range	≤ 0.4 Mpa
Flow rate	≤ 2.5 m/s、8.2ft/s
Calibration	Sample Calibration, Slope Calibration
Main material	Body: SUS316L (fresh water), Titanium alloy (marine); Cable: PUR
Power supply	AC: 85-500VAC; DC: 9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed response parameter and response value.
Communication protocol	MODBUS RS485
Measuring temperature	0-45°C (Non-freezing)
Dimensions	Sensor: Dia. 60mm*Length 261mm, Transmitter: 145*125*162mm(L*W*H)
Weight	Sensor: 1.65KG; Transmitter: 1.35KG
Protective rate	Sensor: IP68/NEMA6P; Transmitter: IP66/ NEMA4X
Cable length	Standard: 10m, the maximum may be extended to 100m

PSS-600 SS (Sludge Concentration) On-line Analyzer

Measurement Principle

PSS-600 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 suspended solids concentration of the sample after treatment by analog and digital signals.



Features

- ❖ The sensor adopts the method of combination of infrared absorption scattered light.
- ❖ 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.
- ❖ Sensor power supply positive and negative reverse connection protection
- ❖ Sensor RS485 A/B terminal is connected to the power supply protection
- ❖ With time display, data storage and historical data viewing function;
- ❖ Optional data wireless transmission module.

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.

Technical Specifications

Measurement range	100-50000mg/L
Measurement accuracy	Less than the $\pm 10\%$ of measured value. (Depending on the homogeneity of sludge)
Repeatability	$\pm 3\%$
Resolution	0.1mg/L, 1 mg/L, base on range
Pressure range	$\leq 0.1\text{Mpa}$
Calibration	Sample Calibration, Slope Calibration
Main material	Body: SUS316L (fresh water) ; Cable: PUR
Power supply	AC: 85-500VAC; DC: 9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed response parameter and response value.
Communication protocol	MODBUS RS485
Storage temperature	-15-50 $^{\circ}\text{C}$
Measuring temperature	0-45 $^{\circ}\text{C}$ (Non-freezing)
Dimensions	Sensor: Dia 49mm*Length 230.5mm Transmitter: 145*125*162mm(L*W*H)
Weight	Sensor: 0.8KG; Transmitter: 1.35KG
Protective rate	Sensor: IP68/NEMA6P; Transmitter: IP66/ 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 photo source sends out scattered by suspended particles in the sample And finally converted to electrical signals by photoelectric detector and getting the turbidity value of 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.
- ◇ 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.
- ◇ Use ISO7027 Standard Method (Infrared light scattering technique) to eliminate effects of sample color.
- ◇ 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	0.01-100 NTU,0.01-4000 NTU
Measurement accuracy	Less than±2% of the measured reading or ±0.1NTU,whichever is greater
Resolution	0.01~0.1NTU,base on range
Repeatability	±2%
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); Cable: PUR
Power supply	AC: 85-500VAC ; DC: 9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed response parameter and response value.
Communication protocol	MODBUS RS485
Measuring temperature	0-45℃ (Non-freezing)
Dimension	Sensor: Dia. 60mm*L261mm;Transmitter: 145*125*162mm(L*W*H)
Weight	Sensor: 1.65KG; Transmitter: 1.35KG
Protective rate	Sensor: IP68/NEMA6P; Transmitter: IP66/ NEMA4X
Cable length	Standard:10m,the maximum may be extended to 100m

PTU-600 Turbidity Online Analyzer

Measurement Principle

PTU-600 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 value of the sample after treatment by analog and digital signals.



Features

- ❖ The sensor adopts the method of combination of infrared absorption scattered light.
- ❖ 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.
- ❖ Sensor power supply positive and negative reverse connection protection
- ❖ Sensor RS485 A/B terminal is connected to the power supply protection
- ❖ With time display, data storage and historical data viewing function;
- ❖ Optional data wireless transmission module.

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	0.01-3000 NTU
Measurement accuracy	Less than $\pm 5\%$ of the measured reading or ± 0.5 NTU, whichever is greater
Repeatability	$\pm 3\%$
Resolution	0.01 NTU , 0.1 NTU , Depend on the measuring range
Pressure range	≤ 0.1 Mpa
Calibration	Sample Calibration, Slope Calibration
Main material	Body: SUS316L (fresh water) ; Cable: PUR
Power supply	AC: 85-500VAC ; DC: 9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed response parameter and response value.
Communication	MODBUS RS485
Storage temperature	-15-50°C
Measuring temperature	0-45°C (Non-freezing)
Dimension	Sensor: Dia49mm*L 230.5mm
Weight	Sensor: 0.8KG; Transmitter: 1.35KG
Protective rate	Sensor: IP68/NEMA6P; Transmitter: IP66/ NEMA4X
Cable length	Standard: 10m, the maximum may be extended to 100m

PLTU-700 Low-Range Turbidity Online Analyzer

Measurement Principle

PLTU-700 low-range turbidity sensor guides the parallel light emitted by the light source downward into the water sample in the sensor. The light is scattered by the suspended sludges, and the scattered light at 90 degrees from the incident Angle is received by the silicon photocell receiver immersed in the water sample. The turbidity value is obtained by calculating the relationship between the 90 degrees scattered light and the incident light beam.



Features

- ◇ Stable data and good repeatability.
- ◇ Simple clean and maintenance.
- ◇ A scattering turbidity meter with continuous readings, designed for low - range turbidity monitoring.
- ◇ 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
Resolution	0.001~0.1NTU, base on range
Repeatability	±2%
Water flow	300ml/min≤X≤700ml/min
Calibration	Sample calibration, Slope calibration
Pipe Fitting	Inlet: 1/4NPT; Outlet: 1/2NPT
Main material	Body: ABS + SUS316L; Seal: Butyl Cyanide Rubber; Cable: PUR
Power supply	AC: 85-500VAC; DC: 9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed response parameter and response value.
Communication protocol	MODBUS RS485
Storage temperature	-15-60℃
Measuring temperature	0-45℃ (Non-freezing)
Dimension	Sensor: 304 *207*392.5mm(L*W*H), Transmitter: 145*125*162mm(L*W*H)
Weight	Sensor: 2.1KG; Transmitter: 1.35KG
Protective rate	Sensor: IP65(Indoor); Transmitter: IP66/ NEMA4X
Cable length	Standard: 3m, not recommend to extend.

PLTU-600 Low-range Turbidity Analyzer

Measurement Principle

PLTU-600 low range turbidity analyzer, through the parallel light emitted by the light source into the sensor of the water samples, the light is scattered by the particles in the water samples, and with the incident angle of 90 degrees of the scattered light is submerged in the water samples of the silicon photocell receiver to receive, through the calculation of 90 degrees of the relationship between the scattered light and the incident beam to obtain the turbidity value of the water samples.



Features

- ◇ EPA principle 90 degree scattering method, specialized for low range turbidity monitoring;
- ◇ Stable and reproducible data;
- ◇ Simple cleaning and maintenance;
- ◇ Power supply positive and negative reverse connection protection;
- ◇ RS485 A/B terminal misconnection power protection.

Applications

- ◇ Turbidity online monitoring of tap water plant pre-filtration, post-filtration, factory water, direct drinking water system
- ◇ Turbidity online monitoring of various industrial production circulating cooling water, filtered water, water reuse system, etc.
- ◇ Online monitoring of turbidity in various industrial production circulating cooling water, filtered water, water reuse system and other links.

Technical Specifications

Measuring range	0.001-100 NTU
Measurement	0.001-40 NTU: $\pm 2\%$ or ± 0.015 NTU bigger one / 40-100 NTU: $\pm 5\%$
Repeatability	$\pm 2\%$
Resolution	0.001-0.1NTU, base on different range
Display	3.5" LCD screen
Sample Flow	200mL/min \leq X \leq 400mL/min
Calibration	Sample calibration, slope calibration
Pipe Fittings	Water inlet: Quick-connect switch to hard pipe $\phi 8$
	Outlet: Quick-connect to hard tube $\phi 12$
	Cleaning port: Quick-insert straight through hard tube $\phi 12$
Sensor Main Material	Body: ASA; Cable: PUR
Power	Sensor 9-36VDC / Standard with 220VAC to 12VDC power converter
Relay	1 way relay
Communication	MODBUS RS485
Storage Temp.	-15-60 $^{\circ}$ C
Operating	0-45 $^{\circ}$ C (Non-freezing)
Dimension	158*166.2*155mm(L*W*H)
Weight	1KG
Protection class	IP65 (Indoor)

PCH-800A Chlorophyll Online Analyzer

Measurement Principle

The principle of PCH-800A Chlorophyll Sensor is using the characteristics of chlorophyll A who has absorption peaks and emission peaks in the spectrum., and emits monochromatic light of a specific wavelength to the water. The light intensity of chlorophyll A is proportional to the content of chlorophyll A in the water.



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.
- ◇ Reverse polarity protection of sensor power.

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 B Dye
Resolution	0.01ug/L
Repeatability	±3%
Pressure range	≤0.4Mpa
Calibration	Deviation value calibration, slope Calibration
Requirements	Suggest multipoint monitoring for the distribution of Blue-Green algae in the water is very uneven. Water turbidity is below 50NTU.
Main material	Body: SUS316L (fresh water), Titanium alloy (marine) Cover: POM; Cable: PUR
Power supply	AC: 85-500VAC; DC: 9~36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed response parameter and response value.
Communication protocol	MODBUS RS485
Storage temperature	-15-50℃
Measuring temperature	0- 45℃ (Non-freezing)
Dimension	Sensor: Dia30mm*L 223mm Transmitter: 145*125*162mm(L*W*H)
Weight	Sensor: 0.55KG; Transmitter: 1.35KG
Protective rate	Sensor: IP68/NEMA6P; Transmitter: IP66/ NEMA4X
Cable length	Standard:10m, the maximum may be extended to 100m

PBA-800A Blue-Green Algae Online Analyzer

Measurement Principle

The principle of PBA-800A Blue-Green Algae Sensor is using the characteristics of cyanobacteria who has absorption peaks and emission peaks in the spectrum, and emits monochromatic light of a specific wavelength to the water. The light intensity of Blue-Green Algae is proportional to the content of Blue-Green Algae in the water.



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	0-300,000cells/mL
Detection limit	200cells/mL
Measurement Accuracy	±10% of the signal level corresponding value of 1ppbRhodamine B Dye
Resolution	20cells/mL
Repeatability	±3%
Pressure range	≤0.4Mpa
Calibration	Deviation value calibration, slope Calibration
Requirements	Suggest multipoint monitoring for the distribution of Blue-Green algae in the water is very uneven. Water turbidity is below 50NTU.
Main material	Body: SUS316L + PVC; Cover: POM; Cable: PUR
Power supply	AC: 85-500VAC;DC: 9-36VDC
Output	3-way 4-20mA
Communication protocol	MODBUS RS485
Storage temperature	-15-50℃
Measuring temperature	0-45℃ (Non-freezing)
Dimension	Sensor: Dia30mm*L 223mm; Transmitter: 145*125*162mm(L*W*H)
Weight	Sensor: 0.55KG; Transmitter: 1.35KG
Protective rate	Sensor: IP68/NEMA6P; Transmitter: IP66/ NEMA4X
Cable length	Standard:10m, the maximum may be extended to 100m
Relay	Three-way relays, programmed response parameter and response value.

PDS-300 Transparency Online Analyzer

Measurement Principle

Water body transparency is an important indicator for determining the black odor level of black odorous water bodies. The PDS-300 sensor is based on the combined infrared absorption and scattering method. The infrared light emitted by the light source is scattered by the water sample. Finally, the electrical signal detected by the photoelectric monitor is converted into a transparency value.



Features

- ◇ Built-in self-diagnosis function to ensure accurate data.
- ◇ Reverse polarity protection of sensor power.
- ◇ With time display, data storage and historical data viewing functions.
- ◇ The sensor adopts dual-beam infrared scattering photometer detection technology, which has good repeatability and stability. Optional data wireless transmission module.
- ◇ Optional cleaning brush automatic cleaning function, greatly reducing the amount of sensor maintenance.
- ◇ Digital sensor with strong anti-interference ability and long transmission distance.
- ◇ Standard digital signal output, which can be integrated and networked with other equipment without a transmitter.
- ◇ On-site installation of the sensor is convenient and quick, enabling plug and play.
- ◇ The sensor RS485 A / B end is connected to the power supply for protection.

Applications

- ◇ Transparency is an important indicator for determining the black odor level of black odorous water bodies, and is especially suitable for online monitoring of black odorous water bodies;
- ◇ Applicable to online monitoring of water body transparency of surface water and aquaculture industries in cities such as inland rivers, lakes and reservoirs.

Technical Specifications

Measuring Range	2-100cm
Measurement Accuracy	±0.3cm or value's 5%
Pressure range	≤0.4Mpa
Flow rate	≤2.5m/s、8.2ft/s
Power supply	AC Power: 85-500VAC; DC Power: 9-36VDC
Output	3 way 4-20mA
Relay	Three-way relay, program setting response parameter and response value
Protocol	MODBUS RS485
Storage temperature	-15 to 50℃
Operating temperature	0 to 45℃(Not freezing)
Size	Sensor: D60mm*L254mm Transmitter: 145*125*162mm (L*W*H)
Weight	Sensor: 1.65KG; Transmitter: 1.35KG
Protection class	Sensor: IP68/NEMA6P; Transmitter: IP66/ NEMA4X
Cable length	Standard 10m cable, can be extended to 100m

PCT-600 Color online analyzer

Measurement Principle

PCT-600 Color online analyzer can be directly immersed in measurement, no sampling and pretreatment, no chemical reagents, no secondary pollution, to achieve in-situ color online monitoring, easy to install on site.

Features

- ◇ Short response time for continuous measurement
- ◇ LED light source, small size, low power consumption, easy to integrate on site
- ◇ The sensor has an automatic cleaning function to reduce maintenance
- ◇ The sensor with power supply positive and negative polarity protection
- ◇ The sensor RS485 A/B is incorrectly connected to the power supply protection.
- ◇ With time display, data storage and historical data view functions (need purchase SD card to support)
- ◇ Optional wireless data transmission module.



Applications

- ◇ Real-time online monitoring of color of tap water, secondary drinking water and agricultural drinking water
- ◇ Real-time online color monitoring of surface water and other environmental water

Technical Specifications

Measuring range	0-100 degree
Measurement accuracy	$\pm 10\%$ or ± 1 degree, whichever is greater
Repeatability	$\leq 5\%$
Resolution	0.1 degree
Pressure range	≤ 0.1 Mpa
Sensor material	Body: SUS316L (normal) , Titanium alloy (seawater version); Cable PUR
Power source	AC: 85-500 VAC DC: 9-36 VDC
Output	3 way 4-20 mA
Relay	Three-way relay, program setting response parameters and response values
Communication protocol	MODBUS RS485
Storage temp.	-15 to 50°C
Operating temp.	0 to 45°C (No frozen)
Dimension	Sensor: Dia. 34mm* L 237mm Transmitter: 145*125*162mm(L*W*H)
Weight	Sensor: 0.8KG, Transmitter: 1.35KG
Class of protection	Sensor: IP68/NEMA6P; Transmitter: IP66/ NEMA4X
Cable length	Standard: 10M cable, Can be extended into 100M

PWQ-1000 Pipe Network Water Quality Monitoring System

Introduction

The pipe network water quality monitoring system is a product developed for drinking water quality online monitoring applications with small size, light weight and convenient on-site installation.

The product integrates water quality analysis sensor, data acquisition and processing unit, internal water flow pipeline unit, which can continuously measure temperature, PH, ORP, turbidity, conductivity parameters.

The system can be externally expanded to access any brand of standard MODBUS RS485 output meter, such as flow, pressure and other parameters.



Features

- ◇ The internal wiring and waterway integration is high, the user only needs to switch on the power supply and access to water, and the equipment is convenient to install on site;
- ◇ 2) The internal waterway design can ensure the stability of water flow in the measurement process of the equipment as far as possible to ensure the accuracy of monitoring data;
- ◇ 3) With automatic fault diagnosis function, with abnormal information record, upload function, such as parts failure, over-range alarm, alarm and other information;
- ◇ 4) Three-level password permission management;
- ◇ 5) With data storage function, data can be displayed in tables and curves.
- ◇ 6) Can support customers to upgrade the program through the U disk on site.

Applications

- ◇ Water quality monitoring of tap water plants, water supply networks, secondary water supply, rural tap water and other occasions;
- ◇ Real-time water quality monitoring of swimming pool, SPA, etc.

Technical Specifications

Display	7 inch touch screen, simple operation interface
Power	Ac power supply: 85-500VAC; Dc power supply: 9-36VDC
Output	8-channel 4-20mA analog output (optional)
Relay	Four-way relay, program setting response parameters and response values
Communication protocol	The standard MODBUS RS485 communication function enables real-time transmission of measured values
Pipe fittings	Water inlet: Straight to a hard tube \varnothing 8 Water outlet: Connect straight to a hard tube \varnothing 12
Water sample flow	200-600ml/min (200~400 ml/min best range)
Storage temp.	0-45°C
Operating temp.	0-40°C
Class of protection	IP54
Dimension	350*270*550mm

Monitoring parameter index

Residual Chlorine/Chlorine Dioxide	Principle	electrode method
	Range	0-2 mg/L、 0-5 mg/L
	Resolution	0.01ppm
pH	Principle	Glass electrode method
	Range	0-14 pH
	Resolution	0.01 pH
	Accuracy	±0.1 pH
ORP	Principle	Glass electrode method
	Range	-2000mV-2000mV
	Resolution	1mV
	Accuracy	±5mV
Dissolved Oxygen	Principle	Fluorescence
	Range	0-20 mg/L; 0-200% Saturation
	Resolution	0.01mg/L
	Accuracy	±3% or ±0.3 mg/L, whichever is greater
Conductivity	Principle	Conductance cell method
	Range	10-5000 us/cm (K=1)
	Resolution	0.1uS/cm-0.01mS/cm (Depends on the range)
	Accuracy	±3% or 3us/cm, bigger one
Low-range Turbidity	Principle	Light scattering
	Range	0-100NTU
	Resolution	0.001-0.1NTU,Depends on the range
	Accuracy	0.001-40NTU: ±2% or ±0.015NTU , Bigger one, 40-100NTU: ±5%
Temp.	Principle	Thermistor method
	Range	0℃-40℃
	Resolution	0.1℃
	Accuracy	±0.5℃

PWQ-2000 Water Quality Monitoring System

Introduction

PWQ-2000 water quality monitoring system is a system that integrates pipe network water quality monitoring sensors, data processing units, and internal water flow pipeline units. It can continuously measure temperature, PH, turbidity, disinfectant indicators, and can extend water quality parameters such as conductivity and ORP. The disinfectant index adopts the DPD colorimetric method. The two disinfectant indexes of residual chlorine, and total chlorine are optional. The cuvette has an automatic cleaning function, which greatly reduces the amount of maintenance and improves the stability of the measurement data. Need to purchase reagents locally. The turbidity adopts the 90 ° scattered light technology of EPA principle, adopts LED light source, low power consumption and long life of light source.



Features

- ◇ Integrated design, save space.
- ◇ The internal wiring and waterway are highly integrated, and users only need to connect the power supply and enter and exit the water.
- ◇ The internal waterway design can try to ensure that the water flow is stable during the internal measurement process of the equipment, and ensure the monitoring data is accurate.
- ◇ DPD colorimetric analyzer, with automatic cleaning function, reducing maintenance.
- ◇ With 7-inch color touch screen, the operation interface is simple, easy operation, reliable system, low maintenance.
- ◇ With data storage and curve display functions, master the dynamic changes of water quality.
- ◇ With automatic fault diagnosis function, abnormal information recording and uploading functions, such as parts failure, over-range alarm, over-standard alarm and other information.
- ◇ Historical data download and curve display can intuitively and accurately understand and track the changes of water parameters within a certain period.
- ◇ With three-level management authority, Optional wireless data transmission module (best to purchase in your local market)

Applications

- ◇ Rural tap water quality monitoring.
- ◇ Water quality monitoring of waterworks and water supply network.
- ◇ Detection of water quality standards for secondary water supply in the community.
- ◇ Real-time water quality monitoring of swimming pool, SPA.

Technical Specifications

Display	7inch LED touch screen, can operate in direct sunlight
Power	AC Power: 85-500VAC; DC Power: 9-36VDC
Output	8 way 4-20mA analog output. Program setting response parameters and response values
Relay	Four relays, program setting response parameters and response values
Communication Protocol	Standard MODBUS RS485 communication function, real-time transmission of measured values. Optional wireless communication method: 4G: UDP / TCP NB: UDP
Storage & Operation Temp.	Storage temperature:0-60℃,Operation temperature:0-45℃ (non-frozen)
Protection Level	IP54
Size	340*450*900mm (L* W*H)

Monitoring parameter index

Residual chlorine /total chlorine	Principle	DPD Standard colorimetry
	Range	0-10ppm
	Resolution	0.01ppm
	Accuracy	0-5ppm: $\pm 5\%$ reading or $\pm 0.03\text{ppmCl}_2$, whichever is greater 5-10ppm: $\pm 10\%$
pH	Principle	Glass electrode method
	Range	0-14 pH
	Resolution	0.01 pH
	Accuracy	± 0.1 pH
ORP	Principle	Glass electrode method
	Range	-2000mV-2000mV
	Resolution	1mV
	Accuracy	$\pm 5\text{mV}$
Conductivity	Principle	Conductivity cell method
	Range	10us/cm-5000 us/cm (K=1)
	Resolution	0.1uS/cm-0.01mS/cm (Depends on range)
	Accuracy	$\pm 3\%$ or 3 us/cm, greater one
Turbidity	Principle	Light scattering
	Range	0-100NTU
	Resolution	0.001-0.1NTU (Depends on range)
	Accuracy	0.001-40NTU: reading $\pm 2\%$ or $\pm 0.015\text{NTU}$, greater one; 40-100NTU: reading $\pm 5\%$
Temp	Principle	Thermistor method
	Range	0°C-80°C
	Resolution	0.1°C
	Accuracy	$\pm 0.5^\circ\text{C}$

PWQ-2000 Water Quality Monitoring System (electrode method)

Introduction

PWQ-2000 water quality monitoring system is a system that integrates pipe network water quality monitoring sensors, data processing units, and internal water flow pipeline units. It can continuously measure temperature, PH, turbidity, disinfectant indicators, and can extend water quality parameters such as conductivity and ORP. The disinfectant index adopts the constant voltage method, and the two disinfectant indexes of residual chlorine and chlorine dioxide are optional; the electrode structure is simple, easy to clean and replace, no need to replace the diaphragm and reagent, and simple maintenance. The turbidity adopts the 90 ° scattered light technology of EPA principle, adopts LED light source, low power consumption and long life of light source.



Features

- ❖ Integrated design, save space.
- ❖ The internal wiring and waterway are highly integrated, and users only need to connect the power supply and enter and exit the water.
- ❖ The internal waterway design can try to ensure that the water flow is stable during the internal measurement process of the equipment, and ensure the monitoring data is accurate.
- ❖ With 7-inch color touch screen, the operation interface is simple, easy operation, reliable system, low maintenance.
- ❖ With data storage and curve display functions, master the dynamic changes of water quality.
- ❖ With automatic fault diagnosis function, abnormal information recording and uploading functions, such as parts failure, over-range alarm, over-standard alarm and other information.
- ❖ With three-level management authority.
- ❖ Historical data download and curve display can intuitively and accurately understand and track the changes of water parameters within a certain period.
- ❖ Optional wireless data transmission module.

Applications

- ❖ Rural tap water quality monitoring.
- ❖ Water quality monitoring of waterworks and water supply network.
- ❖ Detection of water quality standards for secondary water supply in the community.
- ❖ Real-time water quality monitoring of swimming pool, SPA.

Technical Specifications

Display	7inch LED touch screen, can operate in direct sunlight
Power	AC Power: 85-500VAC; DC Power: 9-36VDC
Output	8 way 4-20mA analog output. Program setting response parameters and response values
Relay	Four relays, program setting response parameters and response values
Communication Protocol	Standard MODBUS RS485 communication function, real-time transmission of measured values. Optional wireless communication method: 4G: UDP / TCP NB: UDP
Storage & Operation Temp.	Storage temperature:0-60℃,Operation temperature:0-45℃ (non-frozen)
Protection Level	IP54
Size	340*450*900mm (L* W * H)

Monitoring parameter index

Residual chlorine / total chlorine	Principle	Constant voltage method
	Range	0-20ppm
	Resolution	0.01ppm
pH	Principle	Glass electrode method
	Range	0-14 pH
	Resolution	0.01 pH
	Accuracy	±0.1 pH
ORP	Principle	Glass electrode method
	Range	-2000mV-2000mV
	Resolution	1mV
	Accuracy	±5mV
Conductivity	Principle	Conductivity cell method
	Range	10us/cm-5000 us/cm (K=1)
	Resolution	0.1uS/cm~0.01mS/cm (Depends on range)
	Accuracy	±3% or 3 us/cm, greater one
Turbidity	Principle	Light scattering
	Range	0-100NTU
	Resolution	0.001-0.1NTU (Depends on range)
	Accuracy	0.001-40NTU: reading ±2% or ±0.015NTU, greater one: 40-100NTU: reading ±5%
Temp	Principle	Thermistor method
	Range	0°C-80°C
	Resolution	0.1°C
	Accuracy	±0.5°C

MUC-200 Split Multi-Parameter Online Analyzer

Introduction

The multi-parameter transmitter can realize online monitoring of multiple different parameters at the same time through optional sensors according to different needs of customers, including temperature / PH / ORP / conductance / dissolved oxygen / turbidity / sludge concentration / chlorophyll / blue-green algae / UVCOD / UVNO3 / ion ammonia nitrogen / transparency / residual chlorine and other parameters. The transmitter software interface parameter display realizes self-adaptation, and has data storage and export.



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.

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, industrial sectors and Marine sea water quality.

Technical Specifications

Display	7 inch touch screen with LED strong backlight, can operate in direct sunlight
Power supply	AC power supply: 85-500VAC or DC Power: 9-36VDC
Output	Standard 8 channels 4-20mA analog output. Program setting response parameters and response values
Relay	Four-way relay, program setting response parameters and response values
Communication protocol	Standard MODBUS RS485 communication for real-time transmission of measured value. Optional wireless communication method : 4G: UDP/TCP NB: UDP
Main Material	PA66+GF25+FR (top cover); aluminum powder dusting (lower shell)
Storage Temperature	-20 to 70°C
Operation temperature	-15 to 60°C
Protective rate	IP65/ NEMA4X
Dimension	260mm*200mm*123.3mm (L*W*H)
Weight	About 2.0KG

Standard Electrode Parameters

Temperature	Principle	Thermistor method
	Range	0℃-80℃
	Accuracy	±0.5℃
pH Sensor	Principle	Glass electrode method
	Range	0-14 pH
	Accuracy	±0.1 pH
	Dimension	28.7mm*195mm (Φ*L)
EC Conductivity Sensor	Principle	Conductivity cell method
	Range	10us/cm-5000 us/cm (K=1)
	Accuracy	±3% or 3 us/cm, whichever is greater
DO (Dissolved Oxygen)	Principle	Fluorescence
	Range	0-20 mg/L; 0-200% Saturation
	Accuracy	±3% or ±0.3 mg/L, whichever is greater
Residual Chlorine Sensor (electrode method)	Principle	constant voltage method
	Range	0-2 mg/L, 0-20 mg/L (optional)
	Dimension	13.5mm*178.5mm (Φ*L)
Turbidity Sensor (electrode method)	Principle	Light scattering method
	Range	0.01-100NTU; 0.01-4000NTU
	Accuracy	Less than ±2% of the measure reading or ±0.1 NTU, whichever is greater
	Dimension	60mm*261mm (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	Less than the ±5% of measured value. (Depending on the homogeneity of sludge)
	Dimension	60mm*261mm (Φ*L)
Chlorophyll Sensor	Principle	Fluorescence
	Range	0-500 ug/L
	Accuracy	±5% of the signal level corresponding value of 1ppb Rhodamine B Dye
	Dimension	30*223mm (Φ*L)
Blue-green algae BA Sensor	Principle	Fluorescence
	Range	0-300,000cells/mL
	Accuracy	±10% of the signal level corresponding value of 1ppb Rhodamine B Dye
UVCOD Sensor	Principle	Spectroscopy
	Range	0-2000mg/l COD (2mm optical path),0-1000mg/l COD (5mm optical path) 0-90mg/l COD (50mm optical path)
	Accuracy	±5% (KHP Standard solution)
	Dimension	69*365mm (Diam*L)
NO3 Sensor	Principle	Spectroscopy
	Range	0.1-40mg/l (2mm optical path)
	Accuracy	±5%
Ammonia nitrogen Sensor	Principle	Ion selection
	Range	NH4N: 0.1-3000 mg/L, K+: 0.5- 5000 mg/L (Optional), PH: 5-10
	Accuracy	NH4N: ±5 % or ± 0.2 mg/L bigger; K+: ±10 % or ±0.2 mg/L (Optional) Temp: ±0.5℃ ; pH: ±0.1 pH
	Dimension	55mm*342mm (Φ*L)

MP301 Multi-Parameter Analyzer

Introduction

MP301 multi-parameter online analyzer: suitable for long-term on-line online monitoring, measuring up to 8 parameters simultaneously, including: Temperature, Depth, pH, ORP, Conductivity & Salinity & TDS, Turbidity, DO, Chlorophyll, Blue-green algae, Ammonia nitrogen, Nitrate, Chloride, Fluoride. Optional accessories such as bluetooth module, battery pack, and handheld communicator are also available for easy portable measurement.

HDC-100A Communicator: In order to make the MP301 integrated multi-parameter analyzer complete data reading, parameter setting and calibration of the analyzer without PC, and it can be applied to handheld and portable applications. On the occasion, the company has developed a HDC-100A handheld device for use with it. Built-in GPS receiver; with bluetooth function; with USB interface and data storage function; designed with ergonomic curve, rubber gasket, suitable for hand-held operation, easy to grasp in wet environment.



Features

- ❖ The host can flexibly set the sampling interval, optimize the working/sleep time, and reduce the overall power consumption. It can be applied to battery power, solar power, and mains power supply.
- ❖ SensorRS485 A/B terminal is connected to power supply protection.
- ❖ The host can select blue-tooth communication function to realize data transmission via blue-tooth.
- ❖ Optional handheld communicator, and blue-tooth wireless communication mode with the handheld communicator, data viewing, calibration is convenient, and can realize handheld applications.
- ❖ The host has a data storage function, and more than 100,000 data.
- ❖ Self-cleaning system allows the product to obtain accurate data for a long time.
- ❖ The electrode can be replaced directly in the field, and the maintenance is simple and fast.
- ❖ Sensor power supply positive and negative reverse connection protection.
- ❖ The host has LED lights to display the current running status of the host and the working status of blue-tooth.
- ❖ Standard ModbusRS-485 digital signal output, can be connected with third-party data loggers or remote devices for integration and networking; With built-in battery, optional battery to achieve battery power in a short time; purchase in your local market.



Software Functions

- ❖ Operation software of windows interface has the function of settings, online monitoring, calibration and historical data download, convenient and efficient parameters settings. Convenient and efficient calibration functions.
- ❖ Real-time data and curve display can help users intuitively obtain the data of measured water bodies.
- ❖ 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, ground water and sea water.

Mainframe Physical Indicators

Power Supply	9-36VDC	Measuring Temperature	0-40°C (non-freezing)
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Power Dissipation	3W	Storage Temperature	0-50°C (non-freezing)
Communication protocol	MODBUS RS485	Protection Class	IP68
Size	Diameter 90*Length 635mm	Weight	5KG
Maximum withstand pressure depth	30M(With ion selective electrode: 10 m)	Battery capacity	8 sections, 3.6V lithium sub-battery

Communicator Physical Indicators

Display	3.5-inch color display screen with adjustable backlight
Data storage	More than 100,000 data
Material	ABS+PC
Power supply	Built-in battery power, battery specifications: 4 3.7V rechargeable lithium battery
Protection level	IP67
Operating & Storage temperature	0-50°C (Non-freezing) , -15-60°C
Size &Weight	203*100*43mm,0.5KG

Standard Electrode Parameters

pH Sensor :		Temperature:	
Principle	Glass electrode method	Principle	Thermistor method
Range	0-14 pH (With ion electrode:5~ 10 pH)	Range	0°C-60°C (Mainframe's work temp. 0~40°C)
Resolution	0.01 pH	Resolution	0.1°C
Accuracy	±0.1 pH	Accuracy	±0.5°C
Conductivity sensor:		ORP Sensor:	
Principle	A pair of platinum gauze electrode	Principle	Glass electrode method
Range	1us/cm-2000 us/cm (K=1) 100us/cm-100ms/cm (K=10.0)	Range	-1000mV -+1000mV
Resolution	0.1us/cm-0.01ms/cm (Depending on the range)	Resolution	1mV
Accuracy	±3%	Accuracy	±5mV
DO sensor:		Turbidity sensor:	
Principle	Fluorescence	Principle	Light scattering method
Range	0 -20 mg/L; 0-20 ppm; 0-200%	Range	0-1000NTU
Resolution	0.1%/0.01mg/l	Resolution	0.1NTU
Accuracy	±3% or ±0.3 mg/L, whichever is greater	Accuracy	± 5% or 0.3NTU, whichever is greater
Chlorophyll sensor:		Blue-green algae sensor:	
Principle	Fluorescence	Principle	Fluorescence
Range	0-500 ug/L	Range	0-300,000cells/mL
Resolution	0.01 ug/L-0.1 ug/L, Depending on range	Resolution	20cells/mL
Accuracy	±5% of the signal level corresponding value of 1ppb Rhodamine B Dye	Accuracy	±10% of the signal level corresponding value of 1ppb Rhodamine B Dye
Ammonia Sensor:		Nitrate Sensor:	
Principle	Ion selection	Principle	Ion selection
Range	0.1-3000mg/L-N	Range	0.5-3000mg/L-N
Resolution	0.01mg/L-N	Resolution	0.01mg/L-N
Accuracy	±5% or ±0.2mg/L	Accuracy	±10% or ±0.2mg/L
Chloride Sensor:		Fluoride Sensor:	
Principle	Ion selection	Principle	Ion selection
Range	3-3500mg/L	Range	0.5-10000mg/L
Resolution	0.01mg/L	Resolution	0.01mg/L
Accuracy	±10% or ±0.2mg/L	Accuracy	±10% or ±0.2mg/L
Depth (Pressure):		Potassium ion sensor	
Principle	Pressure-sensitive Method	Principle	Ion selection
Range	0-61m(Maximum withstand pressure depth:30M)	Range	0.5-5000 mg/L
Resolution	2cm	Resolution	0.01mg/L
Accuracy	±0.3%	Accuracy	±10% or ±0.2mg/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

- ◇ 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.
- ◇ Spectrometer NO₃ Probe direct immersion measurement without sampling and pre-processing.

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	0.1-40.0mg/L (2mm)
Accuracy	±5%
Repeatability	± 2%
Resolution	0.01 mg/L
Pressure range	≤0.4Mpa
Sensor material	Body: SUS316L (fresh water) , Cable PUR
Power Supply	AC: 85-500VAC; DC: 9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed response parameter and response value
Communication protocol	MODBUS RS485
Storage temperature	-15-50℃
Measuring temperature	0-45℃ (Non-freezing)
Dimensions	Sensor: Diam69mm*Length 365mm Transmitter: 145*125*162mm(L*W*H)
Weight	Sensor: 3.2KG; Transmitter: 1.35KG
Protective rate	Sensor: IP68/NEMA6P; Transmitter: IP66/ NEMA4X
Cable length	Standard:10M,the maximum may be extended to 100m

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 the measurement value of ammonia nitrogen, and at the same time realize multi-parameter measurement.



Features

- ❖ 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: 0.1-3000 mg/L; K+: 0.5-5000 mg/L (Optional); PH: 5-10; Temp.:0-40°C
Resolution	NH4N: 0.01 mg/l; K+: 0.01mg/L (optional) ;PH: 0.01; Temp.: 0.1°C
Accuracy	NH4N: ±5 % or ± 0.2 mg/L (bigger one); K+: ±10 % or ±0.2 mg/L (optional) ; Temp.: ±0.5°C; pH: ±0.1 pH
Repeatability	±5% or 0.2mg/l, whichever is greater
Pressure	Max Pressure: 0.1MPa (10m)
Power supply	85-500VAC; DC: 9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed response parameter and response value
Communication protocol	MODBUS RS485
Storage temperature	0-50°C (Non-freezing)
Operating temperature	0-40°C (Non-freezing)
Dimension	Sensor: Dia55mm*L 342mm Transmitter: 145*125*162mm(L*W*H)
Weight	Sensor: 1Kg; Transmitter: 1.35Kg
Protective rate	Sensor: IP68/NEMA6P; Transmitter: IP66/ NEMA4X
Cable length	Standard 10M cable (Max could be extended to 100M)

PISE-900 Ion Online Analyzer

Introduction

The PISE-900 sensor can flexibly select one or two ion-selective electrodes. At the same time, it is equipped with PH and temperature electrodes as standard, so that 4 parameters can be monitored simultaneously. The optional parameters of ion selective electrode include: Ammonia nitrogen (NH₄⁺), Nitrate (NO₃⁻), Potassium ion (K⁺), Chloride (CL⁻), Fluoride (F⁻). Different parameter combinations can also achieve mutual compensation, making the measurement data more accurate.



Features

- ◇ You can choose one or two electrodes among ammonium ion, nitrate ion, potassium ion, chloride, fluoride.
- ◇ Realize flexible combination to meet the needs of different customers.
- ◇ Digital sensor, strong anti-interference ability, long transmission distance;
- ◇ Standard digital signal output, which can be integrated and networked with other equipment without a transmitter;
- ◇ The sensor is convenient and quick to install on site, realizing plug and play;
- ◇ The positive and negative polarity of the sensor power supply is reversely connected, and the RS485 A/B end of the sensor is connected to the power supply protection;
- ◇ With time display, data storage and historical data viewing functions, Optional data wireless transmission module.

Applications

- ◇ Monitor the nitrification and aeration tanks of sewage treatment plants, industrial processes and the ammonia nitrogen value in river water.

Technical Specifications

Measuring range	Ammonia nitrogen (NH ₄ N): 0.1-3000 mg/L Nitrate Nitrogen (NO ₃ N): 0.5-3000 mg/L Potassium ion (K ⁺): 0.5-5000 mg/L; Chloride (CL ⁻): 3-3500 mg/L Fluoride (F ⁻): 0.5-10000 mg/L; PH: 5-10; Temperature: 0-40 °C
Resolution	Ion parameters: 0.01 mg/L; Temperature: 0.1 °C; pH: 0.01
Measurement accuracy	Ammonia nitrogen (NH ₄ N): ±5% or ±0.2 mg/L, whichever is greater Other Ion parameters: ±10% or ±0.2 mg/L, whichever is greater Temperature: ±0.5 °C pH: ±0.1 pH
Repeatability	±5% or 0.2mg/l greater one
Power supply	AC: 85-500VAC or DC: 9-36VDC
Output	3 way 4-20mA
Relay	Three-way relay, programmed response parameter and response value
Protocol	MODBUS RS485
Storage&Operating temperature	0 to 50 °C (no freezing) & 0 to 40 °C (no freezing)
Size	Sensor: D55mm×L342mm; Transmitter: L145×W125×H162mm
Weight	Sensor: <1KG; Transmitter: 1.35KG
Protection level	Sensor: IP68/NEMA6P; Transmitter: IP66/NEMA4X
Cable length	Standard 10 meters cable, can be extended to 100 meters

PUVCOD-900 Spectrometer Organic OnLine Analyzer

Measurement Principle

Based on the UV absorption reaction by organic matter, the PUVCOD-900 Spectrometer Organic 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 or BOD values under certain conditions. This method allows continuous monitoring without any reagents.



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.

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	COD (using KHP calibration): 0-2000mg/l COD (2mm) 0-1000mg/l COD (5mm); 0~90mg/l COD (50mm)
	BOD (using KHP calibration): 0-1500mg/l BOD (2mm) 0-750mg/l BOD (5mm); 0-60mg/l BOD (50mm)
	TOC(using KHP calibration): 0-800mg/l TOC(2mm) 0-400mg/l TOC(5mm); 0-35mg/l TOC (50mm)
Accuracy	±5% (KHP Standard solution)
Repeatability	±2% (KHP Standard solution)
Resolution	0.01mg/l
Pressure Range	≤0.4Mpa
Sensor material	Body: SUS316L (fresh water) , Titanium alloy (Ocean marine) ; Cable: PUR
Power Supply	AC: 85-500VAC ; DC: 9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed response parameter and response value.
Communication protocol	MODBUS RS485
Storage temperature	-15-50℃
Measuring temperature	0-45℃ (Non-freezing)
Dimensions	Sensor: Diam 69mm*Length 365mm , Transmitter: 145*125*162mm(L*W*H)
Weight	Sensor: 3.2KG; Transmitter: 1.35KG
Protective rate	Sensor: IP68/NEMA6P; Transmitter: IP66/ NEMA4X
Cable length	Standard:10m, the maximum may be extended to 100m

PUVCOD-600 Spectrometer Organic OnLine Analyzer

Measurement Principle

Based on the UV absorption reaction by organic matter, the PUVCOD-600 Spectrometer Organic 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 or BOD values under certain conditions. This method allows continuous monitoring without any reagents.



Features

- ❖ Direct-immersion probe measurement without taking sampling and pretreatment;
- ❖ No chemical reagents, no secondary pollution;
- ❖ Short response time for continuous measurement
- ❖ LED light source, small size, low power consumption, easy to integrate on-site
- ❖ The sensor has an automatic cleaning function to reduce maintenance time.
- ❖ Sensor power supply positive and negative reverse connection protection
- ❖ Sensor RS485 A/B terminal is connected to the power supply protection
- ❖ With time display, data storage and historical data viewing function;
- ❖ Optional data wireless transmission module.

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	COD (using KHP calibration): 0~500mg/l COD (5mm) ,0-100mg/L COD (25mm) ; BOD (using KHP calibration): 0~375mg/L BOD (5mm) ,0~75mg/L BOD (25mm) ; TOC(using KHP calibration): 0~200mg/L TOC (5mm) ,0~40mg/L TOC (25mm) Turbidity: 10-800 NTU (5mm) ,10-300NTU (25mm)
Accuracy	COD/BOD/TOC (using KHP calibration): $\pm 5\%$ or $\pm 1\text{mg/L}$, whichever is greater; Turbidity: $\pm 10\%$
Repeatability	5% (using KHP calibration)
resolution	COD/BOD/TOC: 0.01 mg/l;Turbidity: 0.01NTU
Pressure Range	$\leq 0.1\text{Mpa}$
Sensor material	Body:SUS316L (fresh water) ,Titanium alloy (Ocean marine) ,Cable: PUR
Power Supply	AC: 85-500VAC (50/60HZ);DC: 9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed response parameter and response value.
Communication protocol	MODBUS RS485
Storage/Measuring temperature	-15-50°C/0-45°C (Non-freezing)
Dimensions	Sensor: Diam 34mm*Length 217mm ;Transmitter: 145*125*162mm(L*W*H)
Weight	Sensor: 0.8KG; Transmitter: 1.35KG
Protective rate	Sensor: IP68/NEMA6P; Transmitter: IP66/ NEMA4X
Cable length	Standard:10m,the maximum may be extended to 100m

PMI800 Series Portable Water Analyzer

Introduction

PMI800 when used with portable electrodes, the PMI800 portable analyzer can measure a variety of parameters such as pH, ORP, Conductivity (convertible Salinity & TDS), Dissolved oxygen, Turbidity, Suspended solids, Chlorophyll, Blue-green algae ect. The connected electrode type can be automatically identified; single channel and dual channel configurations are available. It has the advantages of comfortable operation, convenient testing and wide application.



Main features

- ❖ The host with IP67 protection rating.
- ❖ 3.5-inch color screen display, interface menu design is beautiful, easy to operate;
- ❖ Ergonomic curve design, suitable for hand grip, with rubber non-slip hand strap, not easy to slip in wet environment.
- ❖ With data storage function, storage space 8G, and data export through USB interface.
- ❖ Built-in rechargeable battery and charging directly via USB without disassembling the battery.
- ❖ Automatically identify the connected sensor type and the reading interface automatically adapts.
- ❖ The sensor can be parameterized and calibrated.

Selection Guide

Measurement parameters	Single channel	Dual channel
Turbidity	√	√
Suspended solids	√	√
Dissolved oxygen	√	√
Chlorophyll	√	√
Blue-green algae	√	√
PH	√	√
Conductivity	√	√
ORP	√	√

Technical Specifications

Display	3.5-inch color display screen with adjustable backlight
Data storage	More than 100,000 data
Material	ABS+PC
Power supply	Built-in battery power, battery specifications: 4 3.7V rechargeable lithium battery
Protection level	IP67
Operating temperature	0~50℃ (Non-freezing)
Storage temperature	-15~60℃
Size	203*100*43mm
Weight	0.5KG

Electrode Parameters

	Temp.	Principle	Thermal method
		Range	0°C-60°C
		Resolution	0.01°C
		Accuracy	±0.5°C
	pH	Principle	Glass electrode method
		Range	0-14 pH
		Resolution	0.01 pH
		Accuracy	±0.1 pH
	ORP	Principle	Glass electrode method
		Range	-2000mV~+2000mV
		Resolution	1mV
		Accuracy	±2mV (Electronic component)
	Conductivity (convertible Salinity & TDS)	Principle	Conductivity cell method
		Range	0-20000us/cm (K=1)
		Resolution	0.1uS/cm-0.01mS/cm (base on range)
		Accuracy	±1.5% or ±2 us/cm, bigger one
	Dissolved oxygen	Principle	Fluorescence method
		Measure Range	0-20 mg/L; 0-20 ppm; 0-200%
		Resolution	0.1%/0.01mg/l
		Accuracy	±3% or ±0.3 mg/L, whichever is greater
	Turbidity	Principle	Light scattering
		Measure Range	0.1-1000NTU
		Resolution	0.01-0.1NTU, base on range
		Accuracy	±5% or 0.3NTU bigger one
	Suspended solids	Principle	Light scattering
		Measure Range	0.01-20000mg/L; 0.01-45000mg/L; 0.01-120000mg/L
		Resolution	0.01-1 mg/L, base on range
		Accuracy	Not more than ±5% measured (Depends on sludge homogeneity)
	Chlorophyll	Principle	Fluorescence method
		Measure Range	0-500 ug/L
		Resolution	0.01 ug/L
		Accuracy	± 5% of the signal level of 1 ppb rhodamine B dye
		Linearity	R2 >0.999
	Blue-green algae	Principle	Fluorescence method
		Measure Range	0-300,000cells/mL
		Resolution	20 cells/mL
		Accuracy	±10% of the signal level of 1 ppb rhodamine B dye
		Linearity	R2 >0.999

PCM300-CODmn Permanganate Index Water Quality Online Monitor

Principle

Acid potassium permanganate oxidation titration. The measured potassium permanganate solution and sulfuric acid solution are added into the sample for digestion after mixing. Potassium permanganate oxidize the organic pollutants in the sample, and then add the measured sodium oxalate solution to reduce the remaining potassium permanganate, and then use potassium permanganate solution to drop back excess sodium oxalate. The end point of titration is judged by the electrode, and finally the instrument automatically calculates the index value of permanganate.

Features

- ❖ Use electrode to determine the titration end point, not affected by water samples of chromaticity and turbidity interference, more accurate measurement results;
- ❖ Use sapphire valve core of 10 valve, wear-resisting coefficient tall, resistant to strong acid, alkali, organic solvent resistance, strong service life, high stability;
- ❖ Adopt accurate quantitative injection pump, water samples and reagents to take note more stable precision, ensure measurement accuracy;
- ❖ With waste liquid separation function, realizing high concentration waste liquid reaction from low concentration cleaning liquid waste emissions;
- ❖ With automatic diluting function, can according to the actual water quality automatic adjustment range;
- ❖ With built-in standard addition recovery, blank test verification, the prototype verification, zero check, span, parallel sample testing and other quality control function;
- ❖ Can realize automatic, manual, remote start quality control functions;
- ❖ Has an automatic fault diagnosis and information uploading, logging, such as component fault, outrange alarm, alarm information such as the excessive alarm, lack of reagent;
- ❖ With overheating protection: heating temperature is exorbitant, heater automatically power;
- ❖ Abnormal reset and power later, electricity, instrument automatic discharge instrument in residue of reactants, automatically restore to the original working condition;
- ❖ With power-on alarm function, the instrument will generate alarm information when power is switched on again;
- ❖ With log analysis instrument process and measurement data record and alarm information storage capabilities, to record every hour data calculation, can store more than 3 years;
- ❖ Can U disk rapid export data;
- ❖ With three-level management authority.



Typical Application

- ❖ On-line monitoring of permanganate index of drinking water ;
- ❖ On-line monitoring of permanganate index of surface water.

Technical Specifications

Measurement method	Acid potassium permanganate oxidation titration
End point determination	The electrode determines the end point of the titration
Test Range	0-30mg/L
Repeatability	≤2%
Accuracy	Glucose test: ±5%, actual water sample comparison test: ±10%
Resolution	0.01mg/L
display	7-inch display
Measurement mode	Continuous mode, periodic mode (adjustable from 1 hour to 30 days), fixed point mode, controlled mode, and manual mode are optional
Calibration mode	Two modes of manual calibration and automatic calibration
Maintenance cycle	Generally once a month
Power supply	220VAC±10%, 50HZ±10%
Output	4-20mA output
Communication	MODBUS RS-232、RS-485
Environmental conditions	Temperature adjustable room, recommended temperature +5-40 °C Humidity ≤85% (no condensation)
Size	520*390*1475mm

PCM300-CODcr Chemical Oxygen Demand (CODcr) Water Quality Online Monitor

Principle

The dichromate process. Under certain conditions, the mixed solution of potassium dichromate and sulfuric acid is added to the water sample, and the reaction is carried out in the digestion tank, so that the organic reducing matter in the water sample is oxidized. In the reaction, Cr^{6+} is reduced to Cr^{3+} , which causes the color change of the mixed solution. The color change of the mixed sample is detected by photoelectric colorimeter, and finally converted into the content of oxygen required by the redox reaction, which is the chemical oxygen demand of the water sample under test.

Features

- ◇ Use sapphire valve core of 10 valve, wear-resisting coefficient tall, resistant to strong acid, alkali, organic solvent resistance, strong service life, high stability;
- ◇ Use of special design way of reference, digestion pool mild displacement and digestion pool light pollution does not affect measurements;
- ◇ With waste liquid separation function, realizing high concentration waste liquid reaction from low concentration cleaning liquid waste emissions;
- ◇ Have dynamic dilution function, can be adjusted automatically according to the range of the scene set diluted multiples;
- ◇ With built-in standard addition recovery, blank test verification, the prototype verification, zero check, span, parallel sample testing and other quality control function;
- ◇ Can realize automatic, manual, remote start quality control functions;
- ◇ Has an automatic fault diagnosis and information uploading, logging, such as component fault, outrange alarm, alarm information such as the excessive alarm, lack of reagent;
- ◇ With overheating protection: heating temperature is exorbitant, heater automatically power;
- ◇ Abnormal reset and power later, electricity, instrument automatic discharge instrument in residue of reactants, automatically restore to the original working condition;
- ◇ With power-on alarm function, the instrument will generate alarm information when power is switched on again;
- ◇ With log analysis instrument process and measurement data record and alarm information storage capabilities, to record every hour data calculation, and can store more than 3 years;
- ◇ Can U disk rapid export data;
- ◇ With three-level management authority.



Typical Application

- ◇ On-line monitoring of municipal sewage outfalls;
- ◇ On-line monitoring of pollution source outlet;
- ◇ On-line monitoring of industrial wastewater outlet.

Technical Specification

Range	0-50000mg/L (Customizable)
Indication deviation	Range 0-200mg/L, 20%* $\leq \pm 10\%$; 50%* $\leq \pm 8\%$; 80%* $\leq \pm 5\%$ Range >200mg/L, $\leq \pm 3\%$
Repeatability	$\leq 2\%$
Resolution	0.1mg/L
Display	7 inch display
Measurement mode	Continuous mode, periodic mode (adjustable from 1 hour to 30 days), fixed point mode, controlled mode, and manual mode are optional
Calibration mode	Manual calibration or automatic calibration
Maintenance cycle	General once a month
Power supply	220VAC $\pm 10\%$, 50HZ $\pm 10\%$
Output	4-20mA output
Communication method	MODBUS RS-232, RS-485
Environmental conditions	Temperature adjustable room, recommended temperature +5-40°C Humidity $\leq 85\%$ (no condensation)
Size	520*390*1475mm (L*W*H)

PCM300-NH3N Ammonia Water Quality Online Monitor

Principle

Salicylic acid optical colorimetry. Under the action of air, the sample and the color development agent are fully mixed and chemically reacted. According to the color change of the color development agent, the concentration of ammonia nitrogen is finally calculated.

Features

- ◇ Use sapphire valve core of 10 valve, wear-resisting coefficient tall, resistant to strong acid, alkali, organic solvent resistance, strong service life, high stability;
- ◇ Use of special design way of reference, digestion pool mild displacement and digestion pool light pollution does not affect measurements;
- ◇ With waste liquid separation function, realizing high concentration waste liquid reaction from low concentration cleaning liquid waste emissions;
- ◇ Have dynamic dilution function, can be adjusted automatically according to the range of the scene set diluted multiples;
- ◇ With built-in standard addition recovery, blank test verification, the prototype verification, zero check, span, parallel sample testing and other quality control function,;
- ◇ Can realize automatic, manual, remote start quality control functions;
- ◇ Has an automatic fault diagnosis and information uploading, logging, such as component fault, outrange alarm, alarm information such as the excessive alarm, lack of reagent;
- ◇ With overheating protection: heating temperature is exorbitant, heater automatically power;
- ◇ Abnormal reset and power later, electricity, instrument automatic discharge instrument in residue of reactants, automatically restore to the original working condition;
- ◇ With power-on alarm function, the instrument will generate alarm information when power is switched on again;
- ◇ With log analysis instrument process and measurement data record and alarm information storage capabilities, to record every hour data calculation, and can store more than 3 years;
- ◇ Can U disk rapid export data;
- ◇ With three-level management authority.



Applications

- ◇ Water Online monitoring of ammonia and nitrogen concentrations in drinking water;
- ◇ Water Online monitoring of ammonia and nitrogen concentrations in surface water;
- ◇ Water Online monitoring of ammonia and nitrogen concentrations in municipal sewage import and export;
- ◇ Water Online monitoring of ammonia and nitrogen concentrations in pollution source discharge;
- ◇ Water Online monitoring of ammonia and nitrogen concentrations in industrial nitrogen wastewater.

Technical Specification

Range	0-500mg/L (Customizable)
Indication deviation	0-10mg/L:20%* $\leq\pm 8\%$; 50%* $\leq\pm 5\%$; 80%* $\leq\pm 3\%$ Range> 10mg/L, $\leq\pm 3\%$
Repeatability	$\leq 2\%$
Resolution	0.0001 mg/L (2 to 4 decimal places can be set)
Display	7 inch display
Measurement mode	Continuous mode, periodic mode (adjustable from 1 hour to 30 days), fixed point mode, controlled mode, and manual mode are optional
Calibration mode	Manual calibration or automatic calibration
Maintenance cycle	General once a month
power supply	220VAC $\pm 10\%$, 50HZ $\pm 10\%$
Output	4-20mA output
Communication method	MODBUS RS-232、RS-485
Environmental conditions	Temperature adjustable room, recommended temperature +5-40 °C Humidity $\leq 85\%$ (no condensation)
Size	520*390*1475mm

PCM300-TP Total Phosphorus Water Quality Online Automatic Monitor

Principle

Ammonium molybdate spectrophotometry. Potassium persulfate was used to dissolve the water sample and convert all the phosphorus into orthophosphate. In acidic medium, orthophosphate forms colored complexes with color developing agent and reducing agent. The absorbance measured at a specific wavelength is proportional to the concentration of total phosphorus.

Main features

- ◇ Use sapphire valve core of 10 valve, wear-resisting coefficient tall, resistant to strong acid, alkali, organic solvent resistance, strong service life, high stability;
- ◇ Use of special design way of reference, digestion pool mild displacement and digestion pool light pollution does not affect measurements;
- ◇ With waste liquid separation function, realizing high concentration waste liquid reaction from low concentration cleaning liquid waste emissions;
- ◇ Have dynamic dilution function, can be adjusted automatically according to the range of the scene set diluted multiples;
- ◇ With built-in standard addition recovery, blank test verification, the prototype verification, zero check, span, parallel sample testing and other quality control function;
- ◇ Can realize automatic, manual, remote start quality control functions;
- ◇ Has an automatic fault diagnosis and information uploading, logging, such as component fault, outrage alarm, alarm information such as the excessive alarm, lack of reagent;
- ◇ With overheating protection: heating temperature is exorbitant, heater automatically power;
- ◇ Abnormal reset and power later, electricity, instrument automatic discharge instrument in residue of reactants, automatically restore to the original working condition;
- ◇ With power-on alarm function, the instrument will generate alarm information when power is switched on again;
- ◇ With log analysis instrument process and measurement data record and alarm information storage capabilities, to record every hour data calculation, and can store more than 3 years;
- ◇ Can U disk rapid export data;
- ◇ With three-level management authority.



Typical application

- ◇ Total phosphorus online monitoring of drinking water;
- ◇ Total phosphorus online monitoring of surface water;
- ◇ Online monitoring of total phosphorus in inlet and outlet of municipal wastewater, the pollution discharge outlet;
- ◇ Online monitoring of total phosphorus in industrial wastewater outlet.

Technical Specification

Range	0-100mg/L (Customizable)
Accuracy	$\leq\pm 5\%$ or $\leq\pm 0.005\text{mg/L}$ (Bigger One)
Repeatability	$\leq 2\%$
Resolution	0.0001mg/L (2 to 4 decimal places can be set)
Display	7 inch display
Measurement mode	Continuous mode, periodic mode (adjustable from 1 hour to 30 days), fixed point mode, controlled mode, and manual mode are optional
Calibration mode	Manual calibration or automatic calibration
Maintenance cycle	General once a month
power supply	220VAC $\pm 10\%$, 50HZ $\pm 10\%$
Output	4-20mA output
Communication method	MODBUS RS-232、RS-485
Environmental conditions	Temperature adjustable room, recommended temperature +5-40°C Humidity $\leq 85\%$ (no condensation)
Size	520*390*1475mm

PCM300-TN Total Nitrogen Water Quality Online Automatic Monitor

Principle

Ultraviolet spectrophotometry for potassium persulfate digestion. Nitrogen compounds in water samples in the presence of potassium persulfate, after full oxidation digestion reaction, nitrogen compounds in water samples oxidized into nitrate ions, and then through ultraviolet spectrophotometry measured its absorbance, calculate the total nitrogen content.

Features

- ◇ Use sapphire valve core of 10 valve, wear-resisting coefficient tall, resistant to strong acid, alkali, organic solvent resistance, strong service life, high stability;
- ◇ Use of special design way of reference, digestion pool mild displacement and digestion pool light pollution does not affect measurements;
- ◇ With waste liquid separation function, realizing high concentration waste liquid reaction from low concentration cleaning liquid waste emissions;
- ◇ Have dynamic dilution function, can be adjusted automatically according to the range of the scene set diluted multiples;
- ◇ With built-in standard addition recovery, blank test verification, the prototype verification, zero check, span, parallel sample testing and other quality control function;
- ◇ Can realize automatic, manual, remote start quality control functions;
- ◇ Has an automatic fault diagnosis and information uploading, logging, such as component fault, outrange alarm, alarm information such as the excessive alarm, lack of reagent;
- ◇ With overheating protection: heating temperature is exorbitant, heater automatically power;
- ◇ Abnormal reset and power later, electricity, instrument automatic discharge instrument in residue of reactants, automatically restore to the original working condition;
- ◇ With power-on alarm function, the instrument will generate alarm information when power is switched on again;
- ◇ With log analysis instrument process and measurement data record and alarm information storage capabilities, to record every hour data calculation, and can store more than 3 years;
- ◇ Can U disk rapid export data;
- ◇ With three-level management authority.



Application

- ◇ Total nitrogen online monitoring of drinking water;
- ◇ Total nitrogen online monitoring of surface water;
- ◇ Online monitoring of total nitrogen in inlet and outlet of municipal wastewater, the pollution discharge outlet;
- ◇ Online monitoring of total nitrogen in industrial wastewater outlet.

Technical Specification

Range	0-500mg/L (Customizable)
Accuracy	≤±5%
Repeatability	≤2%
Resolution	0.0001 mg/L (2 to 4 decimal places can be set)
Display	7 inch display
Measurement mode	Continuous mode, periodic mode (adjustable from 1 hour to 30 days), fixed point mode, controlled mode, and manual mode are optional
Calibration mode	Manual calibration or automatic calibration
Maintenance cycle	General once a month
Power supply	220VAC±10%, 50HZ±10%
Output	4-20mA output
Communication method	MODBUS RS-232、RS-485
Environmental conditions	Temperature adjustable room, recommended temperature +5-40℃ Humidity ≤85% (no condensation)
Size	520*390*1475mm

PCM200-CODmn COD Permanganate index water quality online automatic monitor

Principle

Potassium permanganate oxidation spectrophotometry. Under acidic conditions, add a certain amount of potassium permanganate solution, heating reaction time, reducing organic matter and inorganic matter in the water is oxidized, the remaining potassium permanganate is reduced by potassium iodide, the resulting iodine solution under a certain wavelength, its absorbance and the concentration of permanganate water sample is linear relationship.



Features

- ◇ Use sapphire valve core of 10 valve, wear-resisting coefficient tall, resistant to strong acid, alkali, organic solvent resistance, strong service life, high stability;
- ◇ Use of special design way of reference, digestion pool mild displacement and digestion pool light pollution does not affect measurements;
- ◇ With waste liquid separation function, realizing high concentration waste liquid reaction from low concentration cleaning liquid waste emissions;
- ◇ Have dynamic dilution function, can be adjusted automatically according to the range of the scene set diluted multiples;
- ◇ With built-in standard addition recovery, blank test verification, the prototype verification, zero check, span, parallel sample testing and other quality control function;
- ◇ Can realize automatic, manual, remote start quality control functions;
- ◇ Has an automatic fault diagnosis and information uploading, logging, such as component fault, outrange alarm, alarm information such as the excessive alarm, lack of reagent;
- ◇ With overheating protection: heating temperature is exorbitant, heater automatically power;
- ◇ Abnormal reset and power later, electricity, instrument automatic discharge instrument in residue of reactants, automatically restore to the original working condition;
- ◇ With power-on alarm function, the instrument will generate alarm information when power is switched on again;
- ◇ With log analysis instrument process and measurement data record and alarm information storage capabilities, to record every hour data calculation, can store more than 3 years;
- ◇ Can U disk rapid export data;
- ◇ With three-level management authority.

Application

- ◇ Permanganate online monitoring of drinking water;
- ◇ Permanganate online monitoring of surface water.

Technical Specification

Range	0-50mg/L (Customizable)
Deviation	≤±10%
Repeatability	≤2%
Resolution	0.0001 mg/L (2 to 4 decimal places can be set)
Display	7-inch display
Measurement mode	Continuous mode, periodic mode (adjustable from 1 hour to 30 days), fixed point mode, controlled mode, and manual mode are optional
Calibration mode	Two modes of manual calibration and automatic calibration
Maintenance cycle	Generally once a month
Power supply	220VAC±10%, 50HZ±10%
Output	4-20mA output
Communication	MODBUS RS-232、RS-485
Environmental conditions	Temperature adjustable room, recommended temperature +5-40℃ Humidity ≤85% (no condensation)
Size	302*271*462mm

PCM200-CODcr Chemical Oxygen Demand (CODcr) Water Quality Online Monitor

Principle

The dichromate process. Under certain conditions, the mixed solution of potassium dichromate and sulfuric acid is added to the water sample, and the reaction is carried out in the digestion tank, so that the organic reducing matter in the water sample is oxidized. In the reaction, Cr^{6+} is reduced to Cr^{3+} , which causes the color change of the mixed solution. The color change of the mixed sample is detected by photoelectric colorimeter, and finally converted into the content of oxygen required by the redox reaction, which is the chemical oxygen demand of the water sample under test.



Features

- ◇ Use sapphire valve core of 10 valve, wear-resisting coefficient tall, resistant to strong acid, alkali, organic solvent resistance, strong service life, high stability;
- ◇ Use of special design way of reference, digestion pool mild displacement and digestion pool light pollution does not affect measurements;
- ◇ With waste liquid separation function, realizing high concentration waste liquid reaction from low concentration cleaning liquid waste emissions;
- ◇ Have dynamic dilution function, can be adjusted automatically according to the range of the scene set diluted multiples;
- ◇ With built-in standard addition recovery, blank test verification, the prototype verification, zero check, span, parallel sample testing and other quality control function;
- ◇ Can realize automatic, manual, remote start quality control functions;
- ◇ Has an automatic fault diagnosis and information uploading, logging, such as component fault, outrange alarm, alarm information such as the excessive alarm, lack of reagent;
- ◇ With overheating protection: heating temperature is exorbitant, heater automatically power;
- ◇ Abnormal reset and power later, electricity, instrument automatic discharge instrument in residue of reactants, automatically restore to the original working condition;
- ◇ With power-on alarm function, the instrument will generate alarm information when power is switched on again;
- ◇ With log analysis instrument process and measurement data record and alarm information storage capabilities, to record every hour data calculation, and can store more than 3 years;
- ◇ Can U disk rapid export data;
- ◇ With three-level management authority.

Typical Application

- ◇ On-line monitoring of municipal sewage outlet;
- ◇ On-line monitoring of pollution source outlet;
- ◇ On-line monitoring of industrial wastewater outlet.

Technical Specification

Range	0-50000mg/L (Customizable)
Indication deviation	Range 0-200mg/L, 20%* $\leq \pm 10\%$; 50%* $\leq \pm 8\%$; 80%* $\leq \pm 5\%$ Range > 200mg/L, $\leq \pm 3\%$
Repeatability	$\leq 2\%$
Resolution	0.1mg/L
Display	7 inch display
Measurement mode	Continuous mode, periodic mode (adjustable from 1 hour to 30 days), fixed point mode, controlled mode, and manual mode are optional
Calibration mode	Manual calibration or automatic calibration
Maintenance cycle	General once a month
Power supply	220VAC $\pm 10\%$, 50HZ $\pm 10\%$
Output	4~20mA output
Communication method	MODBUS RS-232、RS-485
Environmental conditions	Temperature adjustable room, recommended temperature +5-40°C Humidity $\leq 85\%$ (no condensation)
Size	302*271*462mm

PCM200-NH3N Ammonia Water Quality Online Monitor

Principle

Salicylic acid optical colorimetry. Under the action of air, the sample and the color development agent are fully mixed and chemically reacted. According to the color change of the color development agent, the concentration of ammonia nitrogen is finally calculated.

Features

- ◇ Use sapphire valve core of 10 valve, wear-resisting coefficient tall, resistant to strong acid, alkali, organic solvent resistance, strong service life, high stability;
- ◇ Use of special design way of reference, digestion pool mild displacement and digestion pool light pollution does not affect measurements;
- ◇ With waste liquid separation function, realizing high concentration waste liquid reaction from low concentration cleaning liquid waste emissions;
- ◇ Have dynamic dilution function, can be adjusted automatically according to the range of the scene set diluted multiples;
- ◇ With built-in standard addition recovery, blank test verification, the prototype verification, zero check, span, parallel sample testing and other quality control function;
- ◇ Can realize automatic, manual, remote start quality control functions;
- ◇ Has an automatic fault diagnosis and information uploading, logging, such as component fault, outrange alarm, alarm information such as the excessive alarm, lack of reagent;
- ◇ With overheating protection: heating temperature is exorbitant, heater automatically power;
- ◇ Abnormal reset and power later, electricity, instrument automatic discharge instrument in residue of reactants, automatically restore to the original working condition;
- ◇ With power-on alarm function, the instrument will generate alarm information when power is switched on again;
- ◇ With log analysis instrument process and measurement data record and alarm information storage capabilities, to record every hour data calculation, and can store more than 3 year;
- ◇ Can U disk rapid export data;
- ◇ With three-level management authority.

Applications

- ◇ Water Online monitoring of ammonia and nitrogen concentrations in drinking water;
- ◇ Water Online monitoring of ammonia and nitrogen concentrations in surface water;
- ◇ Water Online monitoring of ammonia and nitrogen concentrations in municipal sewage import and export;
- ◇ Water Online monitoring of ammonia and nitrogen concentrations in pollution source discharge;
- ◇ Water Online monitoring of ammonia and nitrogen concentrations in industrial nitrogen wastewater.



Technical Specification

Range	0-500mg/L (Customizable)
Indication deviation	0-10mg/L:20%* $\leq\pm 8\%$; 50%* $\leq\pm 5\%$; 80%* $\leq\pm 3\%$ Range>10mg/L, $\leq\pm 3\%$
Repeatability	$\leq 2\%$
Resolution	0.0001 mg/L (2 to 4 decimal places can be set)
Display	7 inch display
Measurement mode	Continuous mode, periodic mode (adjustable from 1 hour to 30 days), fixed point mode, controlled mode, and manual mode are optional
Calibration mode	Manual calibration or automatic calibration
Maintenance cycle	General once a month
power supply	220VAC $\pm 10\%$, 50HZ $\pm 10\%$
Output	4-20mA output
Communication method	MODBUS RS-232、RS-485
Environmental conditions	Temperature adjustable room, recommended temperature +5-40℃ Humidity $\leq 85\%$ (no condensation)
Size	302*271*462mm

PCM200-TP Total Phosphorus Water Quality Online Automatic Monitor

Principle

Ammonium molybdate spectrophotometry. Potassium persulfate was used to dissolve the water sample and convert all the phosphorus into orthophosphate. In acidic medium, orthophosphate forms colored complexes with color developing agent and reducing agent. The absorbance measured at a specific wavelength is proportional to the concentration of total phosphorus.

Main features

- ◇ Use sapphire valve core of 10 valve, wear-resisting coefficient tall, resistant to strong acid, alkali, organic solvent resistance, strong service life, high stability;
- ◇ Use of special design way of reference, digestion pool mild displacement and digestion pool light pollution does not affect measurements;
- ◇ With waste liquid separation function, realizing high concentration waste liquid reaction from low concentration cleaning liquid waste emissions;
- ◇ Have dynamic dilution function, can be adjusted automatically according to the range of the scene set diluted multiples;
- ◇ With built-in standard addition recovery, blank test verification, the prototype verification, zero check, span, parallel sample testing and other quality control function;
- ◇ Can realize automatic, manual, remote start quality control functions;
- ◇ Has an automatic fault diagnosis and information uploading, logging, such as component fault, outrage alarm, alarm information such as the excessive alarm, lack of reagent;
- ◇ With overheating protection: heating temperature is exorbitant, heater automatically power;
- ◇ Abnormal reset and power later, electricity, instrument automatic discharge instrument in residue of reactants, automatically restore to the original working condition;
- ◇ With power-on alarm function, the instrument will generate alarm information when power is switched on again;
- ◇ With log analysis instrument process and measurement data record and alarm information storage capabilities, to record every hour data calculation, and can store more than 3 years;
- ◇ Can U disk rapid export data;
- ◇ With three-level management authority.



Typical application

- ◇ Total phosphorus online monitoring of drinking water;
- ◇ Total phosphorus online monitoring of surface water;
- ◇ Online monitoring of total phosphorus in inlet and outlet of municipal wastewater, the pollution discharge outlet;
- ◇ Online monitoring of total phosphorus in industrial wastewater outlet.

Technical Specification

Range	0-100mg/L (Customizable)
Accuracy	≤±5% or≤±0.005mg/L (Bigger One)
Repeatability	≤2%
Resolution	0.0001mg/L (2 to 4 decimal places can be set)
Display	7 inch display
Measurement mode	Continuous mode, periodic mode (adjustable from 1 hour to 30 days), fixed point mode, controlled mode, and manual mode are optional
Calibration mode	Manual calibration or automatic calibration
Maintenance cycle	General once a month
power supply	220VAC±10%, 50HZ±10%
Output	4-20mA output
Communication method	MODBUS RS-232、RS-485
Environmental conditions	Temperature adjustable room, recommended temperature +5-40℃ Humidity ≤85% (no condensation)
Size	302*271*462mm

PCM200-TN Total Nitrogen Water Quality Online Automatic Monitor

Principle

Alkaline potassium persulfate oxidation - resorcinol method. The principle of the method is potassium persulfate under alkaline conditions heating to a certain temperature, so that nitrogen elements containing nitrogen compounds in the water sample into nitrate, in this process, organic matter is also oxidation decomposition, nitrate and resorcinol in concentrated sulfuric acid medium to generate colored compounds, and then at the characteristic wavelength, measured absorbance, and according to the absorbance value of the total nitrogen content.



Features

- ◇ Use sapphire valve core of 10 valve, wear-resisting coefficient tall, resistant to strong acid, alkali, organic solvent resistance, strong service life, high stability;
- ◇ Use of special design way of reference, digestion pool mild displacement and digestion pool light pollution does not affect measurements;
- ◇ With waste liquid separation function, realizing high concentration waste liquid reaction from low concentration cleaning liquid waste emissions;
- ◇ Have dynamic dilution function, can be adjusted automatically according to the range of the scene set diluted multiples;
- ◇ With built-in standard addition recovery, blank test verification, the prototype verification, zero check, span, parallel sample testing and other quality control function;
- ◇ Can realize automatic, manual, remote start quality control functions;
- ◇ Has an automatic fault diagnosis and information uploading, logging, such as component fault, outrage alarm, alarm information such as the excessive alarm, lack of reagent;
- ◇ With overheating protection: heating temperature is exorbitant, heater automatically power;
- ◇ Abnormal reset and power later, electricity, instrument automatic discharge instrument in resi, due of reactants, automatically restore to the original working condition;
- ◇ With power-on alarm function, the instrument will generate alarm information when power is switched on again;
- ◇ With log analysis instrument process and measurement data record and alarm information storage capabilities, to record every hour data calculation, and can store more than 3 years;
- ◇ Can U disk rapid export data;
- ◇ With three-level management authority.

Application

- ◇ Total nitrogen online monitoring of drinking water;
- ◇ Total nitrogen online monitoring of surface water;
- ◇ Online monitoring of total nitrogen in inlet and outlet of municipal wastewater, the pollution discharge outlet.
- ◇ Online monitoring of total nitrogen in industrial wastewater outlet.

Technical Specification

Measurement method	Alkaline potassium persulfate oxidation – resorcinol method
Range	0-250mg/L (Customizable)
Accuracy	≤±5%
Repeatability	≤2%
Resolution	0.0001 mg/L (2 to 4 decimal places can be set)
Display	7 inch display
Measurement mode	Continuous mode, periodic mode (adjustable from 1 hour to 30 days), fixed point mode, controlled mode, and manual mode are optional
Calibration mode	Manual calibration or automatic calibration
Maintenance cycle	General once a month
Power supply	220VAC±10%, 50HZ±10%
Output	4-20mA output
Communication method	MODBUS RS-232、RS-485
Environmental conditions	Temperature adjustable room, recommended temperature +5-40℃ Humidity ≤85% (no condensation)
Size	302*271*462mm

PCM200-TN Total Nitrogen Water Quality Online Automatic Monitor

Principle

Ultraviolet spectrophotometry for potassium persulfate digestion. Nitrogen compounds in water samples in the presence of potassium persulfate, after full oxidation digestion reaction, nitrogen compounds in water samples oxidized into nitrate ions, and then through ultraviolet spectrophotometry measured its absorbance, calculate the total nitrogen content.

Features

- ◇ Use sapphire valve core of 10 valve, wear-resisting coefficient tall, resistant to strong acid, alkali, organic solvent resistance, strong service life, high stability;
- ◇ Use of special design way of reference, digestion pool mild displacement and digestion pool light pollution does not affect measurements;
- ◇ With waste liquid separation function, realizing high concentration waste liquid reaction from low concentration cleaning liquid waste emissions;
- ◇ Have dynamic dilution function, can be adjusted automatically according to the range of the scene set diluted multiples;
- ◇ With built-in standard addition recovery, blank test verification, the prototype verification, zero check, span, parallel sample testing and other quality control function;
- ◇ Can realize automatic, manual, remote start quality control functions;
- ◇ Has an automatic fault diagnosis and information uploading, logging, such as component fault, outage alarm, alarm information such as the excessive alarm, lack of reagent;
- ◇ With overheating protection: heating temperature is exorbitant, heater automatically power;
- ◇ Abnormal reset and power later, electricity, instrument automatic discharge instrument in residue of reactants, automatically restore to the original working condition;
- ◇ With power-on alarm function, the instrument will generate alarm information when power is switched on again;
- ◇ With log analysis instrument process and measurement data record and alarm information storage capabilities, to record every hour data calculation, and can store more than 3 years;
- ◇ Can U disk rapid export data;
- ◇ With three-level management authority.



Application

- ◇ Total nitrogen online monitoring of drinking water;
- ◇ Total nitrogen online monitoring of surface water;
- ◇ Online monitoring of total nitrogen in inlet and outlet of municipal wastewater, the pollution discharge outlet;
- ◇ Online monitoring of total nitrogen in industrial wastewater outlet.

Technical Specification

Measurement method	Alkaline potassium persulfate digestion ultraviolet spectrophotometry
Range	0-500mg/L (Customizable)
Accuracy	≤±5%
Repeatability	≤2%
Resolution	0.0001 mg/L (2 to 4 decimal places can be set)
Display	7 inch display
Measurement mode	Continuous mode, periodic mode (adjustable from 1 hour to 30 days), fixed point mode, controlled mode, and manual mode are optional
Calibration mode	Manual calibration or automatic calibration
Maintenance cycle	General once a month
Power supply	220VAC±10%, 50HZ±10%
Output	4-20mA output
Communication method	MODBUS RS-232、RS-485
Environmental conditions	Temperature adjustable room, recommended temperature +5-40℃ Humidity ≤85% (no condensation)
Size	302*271*462mm

PCM200-Cr⁶⁺Hexavalent Chromium Water Quality Online Automatic Monitor Machine

Features

- ◇ Diphenylcarbazide spectrophotometry. Ten-port valve with sapphire core, high wear resistance, strong acid and alkali resistance, organic solvent resistance, strong service life and high stability.
- ◇ Using a specially designed reference method, the slight displacement of the digestion tank and the slight pollution of the digestion tank will not affect the measured value.
- ◇ With waste liquid separation function, to achieve the separation of high-concentration reaction waste liquid and low-concentration cleaning waste liquid.
- ◇ With automatic dilution function, can automatically adjust the range file according to the actual water quality on site.
- ◇ Built with quality control functions such as standard recovery, zero point verification, standard sample verification, parallel sample test, etc., and it can be started automatically, manually, remotely, etc..
- ◇ With automatic fault diagnosis and abnormal information upload and recording functions, such as parts failure, over-range alarm, over-standard alarm, lack of reagent alarm and other information. With three-level management authority.
- ◇ With overheating protection. After abnormal reset and power failure, the instrument automatically discharges the residual reactants in the instrument and automatically restores to the original working state. With power-on alarm function, the instrument will generate alarm information when power is turned on again after power-off.
- ◇ With analysis instrument process log and measurement data recording and alarm information storage function.



Applications

- ◇ It is widely used in online monitoring of Cr⁶⁺ concentration in drinking water, surface water, municipal sewage inlet and outlet, pollution source discharge outlet, and industrial waste water outlet.

Technical Specifications

Measurement method	Dibenzoyl dihydrazine spectrophotometry
Range	0-5mg/L(Customizable)
Indication error	≤±10%
Lower limit	≤0.01mg/L
Repeatability	≤2%
Resolution	0.0001 mg/L (2 to 4 decimal places can be set)
Display	7 inch display
Measurement mode	Continuous mode, periodic mode (adjustable from 1 hour to 30 days), fixed point mode, controlled mode, and manual mode are optional
Calibration mode	Manual calibration or automatic calibration
Maintenance cycle	General once a month
power supply	220V±22V, 50Hz±0.5Hz
Output	4-20mA output
Communication method	MODBUS RS-232、 RS-485
Environmental conditions	Temperature adjustable room, recommended temperature +5-40℃ Humidity ≤85% (no condensation)
Size	302*271*462mm

EFM20 Electromagnetic Flowmeter

Principle

The electromagnetic flowmeter is based on Faraday's law of electromagnetic induction and is used to measure the volume flow of conductive liquids. The EFM20 electromagnetic converter core uses a high-speed central processing unit, and the calculation speed is very fast. The sensor adopts non-uniform magnetic field technology and special magnetic circuit structure, the magnetic field is stable and reliable, and the measurement performance is reliable.



Main Features

- ◇ There are no moving parts in the pipeline, no flow blocking parts, and almost no additional pressure loss during the measurement;
- ◇ Capable of two-way flow measurement and two-way total accumulation. The three internal totalizers respectively display the forward cumulative amount, the reverse cumulative amount and the cumulative difference cumulative amount;
- ◇ With automatic range switching function, the flow ratio can reach 150:1;
- ◇ Using intelligent judgment, it can judge whether the fluid in the sensor is empty, whether the electrode is contaminated, covered or other abnormal phenomena, and provide users with troubleshooting information such as cleaning the electrode;
- ◇ With self-check and self-diagnosis functions;
- ◇ The use of advanced non-volatile memory, higher circuit reliability, effective protection settings and measurement parameters;
- ◇ The internal design of the instrument has an optional non-power-down clock, which can record the power-down time.

Application

- ◇ Generally used to measure the volume flow of water, sewage, strong acid and alkali and other highly corrosive liquids and uniform liquid-solid two-phase suspended liquids such as mud, mineral pulp, and paper pulp.

Technical Specification

Function	Main Description
Nominal diameter series DN (mm) Special specifications can be specified	Pipeline PTFE lining: DN10-DN600; Pipeline rubber lining: DN40-DN1400
Flow rate range	0.1-15m/s
Flow direction	Positive, negative, net flow
Turndown	150:1
Accuracy class	DN≤600: 0.5 Class; DN>600: 1.0 Class
Medium temperature	Normal rubber lining: -20-+60℃ High temperature rubber lining: -20-+90℃ PTFE lining: -30-+100℃ High temperature type PTFE lining: -30-+180℃
Fixed work stress High pressure can be formulated	6≤DN≤100 Standard: PN16 125≤DN≤1200 Standard: PN10 DN1400 Standard: PN6
Power supply	AC power: 220VAC±10% (50/60HZ) ;DC power: 24VDC
Output	4~20mA
Communication	Optional : Modbus RS-232/458, HART Communication
Ambient temperature	-25℃~+60℃
Relative temperature	5%-95%

PT20 Submersible Stainless Steel Water Pressure Water Level Sensor Probe

Principle

PT20 hydrostatic liquid level sensor adopts sensors with international advanced level, cooperates with high-precision electronic components, and is assembled through strict technological process. It adopts the pressure measurement technology without intermediary liquid, which gives full play to the technical advantages of the sensor and has excellent performance. It has strong resistance to overload and shock, small temperature drift, high stability and high measurement accuracy.

PT20 hydrostatic level sensor has a variety of ranges, a variety of connection forms and materials. It can be widely used in many industrial fields such as municipal, water conservancy, water materials, etc. It can be adapted to various occasions and media such as rivers, rivers, lakes, and canals. It is an ideal upgrade product for traditional pressure gauges and an ideal pressure measuring instrument in the field of industrial automation.



Technical Specification

Operating Voltage:	12VDC
Output signal:	RS485
Measuring range:	0m-30m
Accuracy:	Accuracy class 0.5% Temperature drift -10℃-+60℃: the variation is less than ±0.5%/10℃ Stability ±0.5%FS/1 year Position influence: The installation position does not influence the zero point
Working conditions:	Normal working temperature: -20℃-+70℃ Diaphragm: -20℃-+80℃ (up to 130℃ in a short time) Storage temperature: -20℃-+80℃ Relative humidity: not more than 95%RH (+25℃) Atmospheric pressure: 86 KPa-106KPa
Power consumption	Power consumption of the whole machine ≤0.2W
Vibration effects:	When the vibration frequency is (20-200) Hz in any direction, the variation is less than ±0.02%F.S
Shock effects:	After 11ms of 100G impact in any direction, the change is less than ±0.02%F.S
Protection class:	IP68

PT-30 Hydrostatic level gauge



Technical Specification

Power	RS485 output (8-32V);
Output	RS485
Accuracy	0.5 Level
Range	0~1m...200m Water column
Pressure type	Gauge pressure
Compensation temp.	-10℃-70℃
Operating temp.	-20℃-85℃
Medium temp.	-20℃-85℃
Storage temp.	-40℃-85℃
Zero output temp. drift	±0.3% FS/10℃
Full range output temp. drift	±0.3% FS/10℃
Overload pressure	150% FS
Long-term stability	±0.2% FS/Year
Response time	RS485 output pressure ≤ 100ms (increase to 90% FS)
Insulation resistance	500MΩ/100VDC
Protection class	Probe: IP68, Wiring part: IP65
Load resistance	(U-9V)/0.02A , U : Power voltage
Material	316L
Size	Φ27mm*138mm

PT10M Submersible Stainless Steel Water Pressure Water Level Sensor Probe Transmitter

Principle

PT10M submersible liquid level transmitter adopts imported high-precision, high-stability diffused silicon pressure-sensitive chip, and converts the liquid level signal of the measured liquid into a 4-20mA DC standard signal through a high-reliability amplifying circuit. High-quality sensors, exquisite packaging technology and perfect assembly process ensure the excellent quality and performance of this product. This product is divided into two structures: one-piece and split-type. The product can resist the erosion of a variety of corrosive liquids and can meet the needs of customers to the greatest extent.



Main Features

- ◇ Can be directly put into the liquid to measure the liquid level
- ◇ All-in-one, easy to use
- ◇ Split type, easy to install and adjust
- ◇ Armored, Anti-lightning, anti-RF interference
- ◇ Reverse polarity protection and current limiting protection
- ◇ Intrinsically safe explosion-proof
- ◇ Compact structure and convenient installation
- ◇ High precision, high stability and high reliability

Technical Specification

Function	Water Level Sensor
Precision	±0.5%
Zero deviation	Not more than ±0.5% of the output range (the zero point of the split product can be adjusted)
Zero and span adjustment	±20% (The split type can be adjusted, the one-piece product is not adjustable)
Range adjustment	Any adjustment between the mini. and the max. range (split product, integrated product range is not adjustable)
Power Impact	Less than 0.01%/V of output range
Load impact	Negligible
Temp. effect	10°C-+60°C: the variation is less than ±0.1%/10°C (0.1 grade); The variation is less than ±0.15%/10°C (0.2 class) -30°C--10°C, 60°C-+85°C: The variation is less than ±0.15%/10°C (0.1 grade) The variation is less than ±0.20%/10°C (0.2 class)
Stability	±0.25% FS/3years
Measuring medium	Purified water and general liquid (cable output) Various liquids compatible with 316L stainless steel (Armoured split construction)
Measuring range	0-1m to 0-200m (see selection table)
Overload pressure	2 times the max. range
Operating Voltage	12V-36V DC
Operating temperature	-20°C-60°C
Storage temperature	-40°C-80°C

PADV-60 Ultrasonic Doppler Velocimetry

Introduction

PADV-60 Ultrasonic Doppler Velocimetry is a flow meter based on the principle of Doppler effect. The measuring point is in front of the probe, does not destroy the flow field.

With high measuring accuracy, wide range, fast response speed and so on.

Internal integrated pressure sensor and temp. sensor, set velocity, liquid level, temp., flow measurement in one. Suitable for open channel, river, drainage pipe network and all kinds of full pipe, not full pipe flow rate measurement.



Features

- ◇ Integration design, small size.
- ◇ RS485 communication, Modbus RTU communication protocol
- ◇ No mechanical moving parts, there is no sediment jam or aquatic plants, sundry winding
- ◇ Application range is wide, can be used for unattended long-term on-line monitoring;
- ◇ High measurement precision, wide range, responsive, high resolution.

Application

- ◇ Municipal water supply and drainage, sewage discharge.
- ◇ Water loss/infiltration, irrigation process monitoring.
- ◇ Culvert process, roads drainage, river flow monitoring.
- ◇ Flood disaster monitoring.

Technical Specifications

Velocity range	-10-10m/s (Customizable)
Velocity accuracy	± 1- 3% (Affected by the site working environment, the measurement accuracy changes)
Velocity resolution	1mm/s
Water level range	0.02-10m
Water level accuracy	±3cm
Bathymetric resolution	1mm
Operating temperature	0-60°C (Non-freezing state)
Temperature resolution	0.1°C
Storage temperature	-20-80°C
Working environment	Sediment content: <20g/L; PH: PH value is between 6 and 8.
Communication protocol	Standard ModBus RS485 protocol
Power supply range	10.8-26.4VDC
Power consumption	1W±0.1W (12V power supply), 1.5W±0.1W (24V power supply)
Working current	≤100mA
Material	Nylon+Fiberglass
Protection class	IP68
Weight	2.5KG including Cable (Standard 20m cable)
Dimension	207.5*105*37.5mm (L*W*H)

ULM Series Ultrasonic Level Meter

Measuring principle

The working principle of the ultrasonic level gauge is that the high-frequency ultrasonic pulse sent by the transducer (probe) is reflected back when it encounters the surface of the measured medium, and part of the reflected echo is received by the same transducer and converted into an electrical signal. Ultrasonic pulses propagate at the speed of sound waves, and the time interval required from transmitting to receiving ultrasonic pulses is proportional to the distance from the transducer to the surface of the measured medium.



Main Features

- ◇ Integral type and split type are optional, suitable for different field installation requirements;
- ◇ The split type can realize single-channel and dual-channel optional, and can realize multi-point measurement, alarm and other functions;
- ◇ Easy to use, reliable results, interface operation instructions can reduce operation errors;
- ◇ The probe material is mainly POM, and PVDF and PTFE are also optional, suitable for various working conditions;
- ◇ The internal integrated temperature sensor can perform temperature compensation on the sound velocity in real time.

Technical Specification

Measuring range	0-5/10/15/20m range optional
Measurement accuracy	±0.5% FS
Blind area	0.4-0.8m depending on the range
Material	Transmitter: ABS; Sensor: POM, PTFE or PVDF Optical
Power supply	AC: 220VAC+15% 50Hz; DC: 24VDC
Output	4-20mA
Protocol	MODBUS RS485(Optional)
Storage temp.	-15 to 60℃
Operating temp.	-10 to 60℃
Protection level	Sensor : IP68/NEMA6P; Transmitter: IP65/ NEMA4X
Cable length	Standard 10m cable, extendable to 50m

MUC-200 Split Multi-Parameter Online Analyzer

Introduction

The multi-parameter transmitter can realize online monitoring of multiple different parameters at the same time through optional sensors according to different needs of customers, including temperature / PH / ORP / conductance / dissolved oxygen / turbidity / sludge

concentration / chlorophyll / blue-green algae / UVCOD / UVNO3 / ion

ammonia nitrogen / transparency / residual chlorine and other parameters. The transmitter software interface parameter display realizes self-adaptation, and has data storage and export.



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, industrial sectors and Marine sea water quality.

Technical Specifications

Display	7 inch touch screen with LED strong backlight, can operate in direct sunlight
Power supply	AC power supply: 85-500VAC or DC Power: 9-36VDC
Output	Standard 8 channels 4-20mA analog output. Program setting response parameters and response values
Relay	Four-way relay, program setting response parameters and response values
Communication protocol	Standard MODBUS RS485 communication for real-time transmission of measured value. Optional wireless communication method : 4G: UDP/TCP NB: UDP
Main Material	PA66+GF25+FR (top cover); aluminum powder dusting (lower shell)
Storage Temperature	-20 to 70℃
Operation temperature	-15 to 60℃
Protective rate	IP65/ NEMA4X
Dimension	260mm*200mm*123.3mm (L*W*H)
Weight	About 2.0KG

Standard Electrode Parameters

Temperature	Principle	Thermistor method
	Range	0℃-80℃
	Accuracy	±0.5℃
pH Sensor	Principle	Glass electrode method
	Range	0-14 pH
	Accuracy	±0.1 pH
	Dimension	28.7mm*195mm (Φ*L)
TDS Sensor	Principle	Conductivity cell method
	Range	0-2500 mg/L (K=1)
	Accuracy	±3% or 3 us/cm, whichever is greater
	Dimension	28.7mm*195mm (Φ*L)
UVCOD Sensor	Principle	Spectroscopy
	Range	COD (KHP was used for calibration): 0~500mg/L (5mm); BOD (KHP was used for calibration): 0~375mg/L (5mm); Suspended solids: 0~500mg/L (Tetst the trend)
	Accuracy	COD/BOD: ±5% (KHP standard solution)
	Dimension	34*217mm (Diam*L)



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