PROBEST®

A TRUST WORTHY

Water Analyzer Instruments ISO Factory



Fuzhou Probest Intelligent Technology Co., Ltd.

CE,ROHS, ISO(All products are 100% test before shipment.)

COMPANY BRIEF INTRODUCTION

Fuzhou Probest Intelligent Technology Co., Ltd. was established in September 2015, headquartered in Fuzhou, Fujian. The company's production base is more than 10,000㎡. We are a high-tech enterprise focusing on water quality sensors, instruments and automation equipment, integrating scientific research, manufacturing, marketing and services.

THE COMPANY'S HISTORY



- 2023 → Integrated project department is established.
- 2022 → Products are exported to more than 30 countries, and sales exceed 100 million.
- 2021 → The plant area expanded to 7,000㎡, with more than 200 employees.
- 2020 → The cumulative sales of water quality analyzers exceeded 50,000 units.
- 2019 → The plant area expanded to 4,000㎡, and an optical laboratory was established. Sales exceeded 50 million, and Probest products began exporting
- 2018 → Established a precision machining center, obtained ISO9001 certification, obtained national and provincial high-tech enterprise certification, and the cumulative sales of water quality analyzers exceeded 10,000 units.
- 2017 → Sales exceeded 10 million, and a chemical laboratory was established.
- 2016 → Released MP301 integrated multi-parameter, residual chlorine, low turbidity and other
- 2015 → The company was established, and released optical sensors and transmitters for fluorescence method dissolved oxygen, turbidity, suspended solids, chlorophyll, blue-green algae, etc.
- 2013 → R&D+Products Team were established.

WHY CHOOSE US PROBEST?

A direct reliable ISO9001 authorized water analysis manufacturer.
Strong 50+ professional R&D, 10+QA and 16+ QC team ensure superior quality.
Many patents and software copyrights ensure products meet markets requirements.
The most importance is our united team as a PROBEST family.
Worthy to be trusted as long terms partners.

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

FACTORY





TEAM BUILDING





MARKET ACTIVITIES






PROBEST CERTIFICATIONS



















PROBEST CASES

In recent years, guided by market demand, we PROBEST have focused on the research and development of environmental water analyzer monitoring and laboratory monitoring equipments, which has been widely used in tap water, sewage treatment, surface and groundwater monitoring, aquaculture monitoring, industrial process water monitoring, laboratory water quality analysis, smart water services and other fields.













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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 prompt error and warning information, and upload alarm signals;
- 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 prompt error and warning information, and upload alarm signals;
- 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 parameter & value response
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

DXC20 Universal Transmitter

Introduction



The DXC20 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. DXC20 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 prompt error and warning information, and upload alarm signals;
- 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 parameter & value response.
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-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-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.
- 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 distance transmission .
- 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 ;Cable: PUR
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 parameter & value response.
Protective rate	Sensor:IP68/NEMA6P;Transmitter:IP66/ NEMA4X
Dimensions	Sensor:Dia34mm*L 231mm;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 stablity.
- 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 distance transmission .
- 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	Three-way relays, programmed parameter & value response
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

PEC-500 Conductivity Online Analyzer

Introduction



Conductivity sensor is a kind of glass platinum electrode.Its principle is putting 2 conductance pieces in which a voltage is added into the sample solution to measure current in the solution.Then calculate the conductivity by voltage and current.

Main Features

- Good repeatability and stability.
- Simple cleaning and activation,quite high balance speed.
- 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,adopting terminal connection.

Application

- Conductivity monitoring of tap water,municipal sewage and aquaculture and etc.
- Conductivity monitoring of industrial process water and in wastewater treatment process.

Technical Specifications

Main materials	Black polypropylene shell, glass platinum electrode
Measurement range	Conductivity：10-5,000 us/cm；Temperature：0-80℃
Pressure range	≤0.6Mpa
Response time	≤10 sec (Reach 95% of the end value)(After stirring)
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 temperaturetemperature	0- 80℃（Non-freezing）
Dimension	Sensor：Dia28.7mm*L 195mm Transmitter：145*125*162mm(L*W*H)
Weight	Sensor：0.2KG；Transmitter：1.35KG
Cable length	Standard：10m，the maximum can be extended

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
Resolution	0.01us/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 parameter & value response.
Protective rate	Sensor:IP68/NEMA6P;Transmitter:IP66/ NEMA4X
Dimensions	Sensor:Dia34mm*L 231mm;Transmitter:145*125*162mm(L*W*H)
Mounting thread	Top/bottom R3/4
Cable length	Standard: 10m, up to 200m

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	Three-way relays, programmed parameter & value response
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

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 no 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 distance transmission .
- Standard digital signal output can achieve integration and networking with other equipment without controller.
- Plug-and-play sensor, quick and easy installation.

Technical Specifications

Measurement range	DO:0-20 mg/L or 0-200% saturation;Temperature:0-45℃
Measurement Accuracy	DO:±3% or ±0.3 mg/L, the bigger one;Temperature:±0.5℃
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 parameter & value response.
Communication protocol	MODBUS RS485
Storage temperature	-15-60℃
Measuring temperature	0-45℃(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 no 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 distance transmission .
- 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℃
Measurement Accuracy	DO:±3% or ±0.3 mg/L, the bigger one ;Temperature:±0.5℃
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 parameter & value response.
Communication protocol	MODBUS RS485
Storage & Measuring temp	-15-60℃,0-45℃(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℃
Measurement accuracy	DO: ±3% of measured value or ±0.3mg/l, greater one; temp.: ±0.5℃
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℃ Operating: 0 to 45℃(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%/℃
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℃(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%/℃
Power supply	12VDC
Communication protocol	MODBUS RS485
Flow rate	30-60L/h
Operating temperature	0-50℃(Non-freezing)
Electrode dimensions	Dia13.5mm*L178.5mm
Mounting Dimensions	PG13.5
Electrode materials	316LStainless steel shell
Cable length	Standard 5M cable

PDCL-500M Residual Chlorine or Chlorine Dioxide Oline 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,CLO2
Measuring system	Micro-electronic MEMS technology, special membrane structure
Measuring range	0-2mg/L, 0-5mg/L
Measuring accuracy(25℃,pH=7.2)	≤2mg/L:±5% or ±0.03mg/L of test value(bigger one) 2-5ppm:±5% or ±0.25mg/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 energized for half an hour
Response time	< 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: < 1% Range: 2-20ppm: < 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℃ (no condensation in water) Ambient room temp.: 0-55℃
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.e 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 distance transmission .
- 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	< the ±5% of measured value. (Depending on the homogeneity of sludge)
Resolution	0.01-1mg/L 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 parameter & value response.
Communication protocol	MODBUS RS485
Measuring temperature	0-45℃ (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 distance transmission .
- 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.
- Online monitoring of sewage plant outlets, municipal pipe network water quality, and pollution source discharge outlets

Technical Specifications

Measurement range	0.01-1000mg/L,100-50000mg/L
Measurement accuracy	<±10% of the measured value (depending on the homogeneity of the sludge) or 10 mg/L, bigger one
Repeatability	±3%
Resolution	0.01mg/L-1mg/L,base on range
Pressure range	≤0.4Mpa
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 parameter & value response.
Communication protocol	MODBUS RS485
Storage temperature	-15-50℃
Measuring temperature	0-45℃(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 distance transmission .
- 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	<±2% of the measured value or ±0.1NTU,the bigger one
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 valueof 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 distance transmission .
- 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	< ±5% of the measured value or ±0.5NTU,the bigger one
Repeatability	±3%
Resolution	0.01NTU , 0.1NTU , Depend on the measuring range
Pressure range	≤0.4Mpa
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 parameter & value response.
Communication protocol	MODBUS RS485
Storage temperature	-15-50℃
Measuring temperature	0-45℃(Non-freezing)
Dimension	Sensor:Dia49mm*L 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

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 scatte red 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 w ater sample. The turbidity value is obtained by calculating the relationship bet ween 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,the bigger one; ±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 parameter & value response.
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 accuracy	0.001-40 NTU: ±2% or ±0.015 NTU bigger one / 40-100 NTU: ±5%
Repeatability	≤2%
Resolution	0.001-0.1NTU,base on different range
Display	3.5 inch LCD screen
Sample Flow	200mL/min≤X≤400mL/min
Calibration	Sample calibration, slope calibration
Pipe Fittings	Water inlet: Quick-connect switch to hard pipe φ8
	Outlet: Quick-connect to hard tube φ12
	Cleaning port: Quick-connect to hard tube φ12
Sensor Main Material	Body:ASA;Cable:PUR
Power	Sensor 9-36VDC / Standard with 220VAC to 12VDC power converter
Relay	1 way relay
Output	1 way 4-20mA
Communication	MODBUS RS485
Storage Temp.	-15-60℃
Operating Temperature	0-45℃(Non-freezing)
Dimension	158*166.2*155mm(L*W*H)
Weight	1KG
Protection Rate	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 distance transmission .
- 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 parameter & value response.
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 distance transmission .
- 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 parameter & value response.

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 colorimetric online analyzer adopts the principle of absorbance spectrophotometry and complies with the platinum-cobalt color standard.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	±10% or±1degree, the bigger one
Repeatability	≤5%
Resolution	0.1 degree
Pressure range	≤0.1Mpa
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℃
Operating temp.	0 to 45℃(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

POIL-800 Oil In Water Online Analyzer

Measurement Principle



The POIL-800 oil-in-waterOnline Analyzer uses ultraviolet fluorescence to monitor the oil content in water. It quantitatively analyzes the concentration of oil in water based on the fluorescence intensity emitted by petroleum and its aromatic compounds and conjugated double bond compounds after absorbing ultraviolet light. Aromatic hydrocarbons in petroleum can produce fluorescence under ultraviolet light excitation, and the value of oil in water is calculated based on the intensity of fluorescence.

Features

- Advanced optical monitoring method, no reagents, no dilution, long-term stable operation;
- Short response time, continuous measurement;
- LED light source, small size, low power consumption, easy on-site integration;
- The sensor has an automatic cleaning function to reduce maintenance;
- Unique optical and electronic filtering technology to eliminate the influence of ambient light;
- Wide operating range and high sensitivity;
- All-metal casing, sturdy and durable.

Applications

- Real-time online monitoring of oil in water in water treatment systems and wastewater discharge in industrial fields such as petroleum, chemical industry, and electric power;
- Real-time online monitoring of oil in water in environmental water bodies such as surface water, groundwater, seawater, drinking water, and pollution source emission control.

Technical Specifications

Measuring range	0~100mg/L(NDSA)
Measuring accuracy	Less than ±5% of the measured value or ±0.15mg/L, the bigger one
Repeatability	±2%
Resolution	0.01mg/L
Pressure range	≤0.4Mpa
Calibration	Sample calibration, slope calibration
Main material of sensor	Body: SUS316L (normal version), titanium alloy (seawater version); 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℃
Operating temperature	0-45℃ (no freezing)
Dimensions	Sensor：Diameter 60mm*Length 262mm
Weight	Sensor：2.1KG；Transmitter：1.35KG
Protection level	Sensor：IP68/NEMA6P；Transmitter：IP66/ NEMA4X
Cleaning method	Automatic scraper cleaning
Cable length	Standard 10m cable, can be extended to 100m

POIL-700 Oil In Water Online Analyzer

Measurement Principle



The POIL-700 oil-in-water Online Analyzer uses ultraviolet fluorescence to monitor the oil content in water. It quantitatively analyzes the concentration of oil in water based on the fluorescence intensity emitted by petroleum and its aromatic compounds and conjugated double bond compounds after absorbing ultraviolet light. Aromatic hydrocarbons in petroleum can produce fluorescence under ultraviolet light excitation, and the value of oil in water is calculated based on the intensity of fluorescence.

Features

- Advanced optical monitoring method, no reagents, no dilution, long-term stable operation;
- Short response time, continuous measurement;
- LED light source, small size, low power consumption, easy on-site integration;
- The sensor has an automatic cleaning function to reduce maintenance;
- Unique optical and electronic filtering technology to eliminate the influence of ambient light.

Applications

- Real-time online monitoring of oil in environmental water such as surface water, groundwater, drinking water, and pollution source emission control.

Technical Specifications

Measuring range	0~50mg/L(NDSA)
Measuring accuracy	Less than ±10% of the measured value or ±0.3mg/L, the bigger one
Repeatability	±5%
Resolution	0.01mg/L
Pressure range	≤0.1Mpa
Calibration	Sample calibration, slope calibration
Main material of sensor	Body: SUS316L; 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℃
Operating temperature	0-45℃（no freezing）
Dimensions	Sensor：Diameter 60mm*Length 212mm
Weight	Sensor：1.55KG；Transmitter：1.35KG
Protection level	Sensor：IP68/NEMA6P；Transmitter：IP66/ NEMA4X
Cleaning method	Automatic scraper cleaning
Cable length	Standard 10m cable, can be extended to 100m

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	0.1-100.0mg/L(1mm optical path),0.1-50mg/l (2mm optical path)
Accuracy	±5%
Repeatability	± 2%
Resolution	0.01 mg/L
Pressure range	≤0.4Mpa
Sensor 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 parameter & value response
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

PUVCOD-900 Spectrometer Organic OnLine Analyzer

Measurement Principle

Based on the UV absorption reaction by organic matter, the PUVCOD-900 Spectromete 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 parameter & value response.
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 Spectromete 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):±5% or ±1mg/L, the bigger one;Turbidity:±10%
Repeatability	5% (using KHP calibration)
resolution	COD/BOD/TOC:0.01 mg/l;Turbidity:0.01NTU
Pressure Range	≤0.1Mpa
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 parameter & value response.
Communication protocol	MODBUS RS485
Storage/Measuring temperature	-15-50℃/0-45℃(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

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℃
Resolution	NH4N:0.01 mg/l; K+:0.01mg/L(optional);PH:0.01; Temp.: 0.1℃
Accuracy	NH4N:±5 % or ± 0.2 mg/L (bigger one); K+:±10 % or ±0.2 mg/L(optional); Temp.: ±0.5℃; pH:±0.1 pH
Repeatability	±5% or 0.2mg/l, the bigger one
Pressure	Max Pressure: 0.1MPa (10m)
Power supply	85-500VAC;DC: 9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed parameter & value response
Communication protocol	MODBUS RS485
Storage temperature	0-50℃ (Non-freezing)
Operating temperature	0-40℃ (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 (NH4N): 0.1-3000 mg/L Nitrate Nitrogen (NO3N):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℃
Resolution	Ion parameters: 0.01 mg/L;Temperature: 0.1℃;pH:0.01
Measurement accuracy	Ammonia nitrogen (NH4N): ±5% or ±0.2 mg/L, the bigger one Other Ion parameters: ±10% or ±0.2 mg/L, the bigger one Temperature: ±0.5℃ 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
Sorage&Operating temperature	0 to 50℃(no freezing)&0 to 40℃(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

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(optional)
Communication protocol	Standard MODBUS RS485 communication function, real-time transmission of measured values. Optional wireless communication method: 4G: UDP / TCP NB: UDP
Pipe fittings	Water inlet: Straight to a hard tube ⌀ 8 Water outlet: Connect straight to a hard tube ⌀ 12
Water sample flow	200-600ml/min (200-400 ml/min best range)
Storage temp.	0-45℃
Operating temp.	0-40℃
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, the bigger one
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%
Color	**Principle**	Absorbance spectrophotometry
	Range	0-100 degree
	Resolution	0.1 degree
	Accuracy	±10% or±1degree, the bigger one
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:±5% reading or ± 0.03ppmCl2, the bigger one 5-10ppm:±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	±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%
Color	**Principle**	Absorbance spectrophotometry
	Range	0-100 degree
	Resolution	0.1 degree
	Accuracy	±10% or±1degree, the bigger one
Temp.	**Principle**	Thermistor method
	Range	0℃-40℃
	Resolution	0.1℃
	Accuracy	±0.5℃

PWQ-2000Water 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 in dexes of residual chlorine and chlorine dioxide are optional; the electrode structure is s imple, 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%
Color	**Principle**	Absorbance spectrophotometry
	Range	0-100 degree
	Resolution	0.1 degree
	Accuracy	±10% or±1degree, the bigger one
Temp.	**Principle**	Thermistor method
	Range	0℃-40℃
	Resolution	0.1℃
	Accuracy	±0.5℃

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℃
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)
EC Conductivity Sensor	**Principle**	Conductivity cell method
	Range	10us/cm-5000 us/cm(K=1)
	Accuracy	±3% or 3 us/cm, the bigger one
	Dimension	28.7mm*195mm(Φ*L)
DO (Dissolved Oxygen)	**Principle**	Fluorescence
	Range	0-20 mg/L;0-200% Saturation
	Accuracy	±3% or ±0.3 mg/L, the bigger one
	Dimension	49.5mm*251.5mm(Φ*L)
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	< ±2% of the measure reading or ±0.1 NTU, the bigger one
	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	< 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
	Dimension	30*223mm(Φ*L)
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	0.1-100.0mg/L(1mm optical path),0.1-50mg/l (2mm optical path)
	Accuracy	±5%
	Dimension	69*365mm(Diam*L)
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℃(non-freezing)

Power Dissipation	3W	**Storage Temperature**	0-50℃(non-freezing)
Communication protocol	MODBUS RS485	**Protection Class**	IP68
Size	Diameter 90*Length 635mm	**Weight**	5KG
Maximum withstand pressure depth	30M(With ion selective elect rode: 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℃(Non-freezing),-15-60℃
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℃-60℃(Mainframe's work temp. 0-40℃)
Resolution	0.01 pH	**Resolution**	0.1℃
Accuracy	±0.1 pH	**Accuracy**	±0.5℃
Conductivity sensor:		**ORP Sensor:**	
Principle	Conductivity cell method	**Principle**	Glass electrode method
Range	10us/cm-200ms/cm	**Range**	-1000mV -+1000mV
Resolution	0.1us/cm-0.01ms/cm(Depending on the range)	**Resolution**	1mV
Accuracy	±1% or 1uS/cmL, the bigger one	**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, the bigger one	**Accuracy**	± 5% or 0.3NTU, the bigger one
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

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℃-60℃
		Resolution	0.01℃
		Accuracy	±0.5℃
	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, the bigger one
	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

PM3008 Multi-wavelength Portable Colorimeter

Measurement Principle



PM3008 is a multi-wavelength portable colorimeter with multiple measurement curves preset at the factory to meet the measurement applications of CODcr, ammonia nitrogen, total phosphorus, total nitrogen, residual chlorine, chlorine dioxide, total chlorine and other multi-parameters and multi-ranges. Users can also expand the measurement of other parameters by building their own curves.

Users can choose to use pretreatment reagent, without the need for repeated pipetting and reagent configuration, calibration curves and other complex operations, to achieve convenient testing. PM3008 is a portable water quality testing device that can be used both indoors and outdoors. It is widely used in scientific research, universities, sewage treatment plants, water environment testing, enterprise sewage self-inspection and other fields.

Features

- Adopt imported light source, whose service life is up to 100,000 hours.
- LCD display, easy to operate.
- Pretreatments reagents are provided for accurate determination, simple and fast operation, and no need repeated pipetting and reagent preparation.
- Support one-click factory reset.
- Built-in data storage function, convenient for querying historical data.
- With USB interface, data can be transferred to computer.
- Stable photoelectric system design ensures accurate and reliable results.

Applications

- Scientific research, universities, sewage treatment plants, environmental monitoring stations, petrochemicals, papermaking, pharmaceuticals, printing and dyeing, textiles, leather, brewing, dairy, electronics, municipal engineering, enterprise sewage self-inspection and other fields.

Technical Specifications

Photometric Stability	≤0.001 Abs/h
Measuring Range	±2.0 Abs
Photometric Accuracy	0.003 Abs
Photometric Stability	0.001 Abs
Wavelength	420nm,520nm,610nm,850nm
Enclosure Material	ABS+PC
Language	EN/CN
Display Size	3.5 inch LCD
Storage Temp.	-15-60℃
Ambient Humidity	0-90%(Non-freezing)
Measuring Temp.	0-45℃
Power Capacity	4 AA batteries, battery capacity 2000mAh (Provided by customers)
Curve Number	Multiple built-in commonly used curves , and allow 10 curves customized
Data Interface	MICRO USB
Protective Rate	IP66
Data Storage	16G
Weight	610g
Size	233.5mm*106mm*52mm

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, 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 5 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	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 5 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, Cr6+ is reduced to Cr3+, 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 5 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%* ≤±10%;50%* ≤±8%;80%* ≤±5% Range＞200mg/L,≤±3%
Repeatability	≤ 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±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-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 5 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 expor;
- 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%* ≤±8%;50%* ≤±5%;80%* ≤±3% Range＞10mg/L,≤±3%
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-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, 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 5 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 resorcol 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, 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 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 5 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, 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 5 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

Principle

Diphenylcarbohydrazide spectrophotometry. In an acidic solution, hexavalent chromium in the water sample reacts with diphenylcarbohydrazide to generate a purple-red compound. This compound has a strong absorption peak at a specific wavelength, and its absorbance is proportional to the concentration of hexavalent chromium in the water sample. By measuring its absorbance, the content of hexavalent chromium in the water sample can be calculated.



Features

- The ten-way valve with sapphire valve core has high wear resistance, strong acid and alkali resistance, organic solvent resistance, long service life and high stability;
- The specially designed reference method is adopted, and the slight displacement and slight pollution of the digestion tank will not affect the measurement value;
- It has the function of waste liquid separation to achieve the separate discharge of high-concentration reaction waste liquid and low-concentration cleaning waste liquid;
- It has the function of dynamic dilution, which can automatically adjust the dilution multiple according to the range set on site
- It has built-in quality control functions such as spike recovery, blank test, standard sample verification, zero point verification, span verification, parallel sample test, etc., and can realize automatic, manual, remote and other ways to start the quality control function;
- It has the function of automatic fault diagnosis and abnormal information upload and recording, such as component failure, over-range alarm, over-standard alarm, reagent shortage alarm and other information;
- It has overheating protection: the heating temperature is too high, and the heater automatically cuts off the power;
- After abnormal reset and power failure, the instrument automatically discharges the residual reactants in the instrument and automatically returns to the initial working state. It has a power-on alarm function. When the power is turned on again after a power failure, the instrument will generate an alarm message;
- It has the function of recording the process log of the analytical instrument, measuring data and alarm information. It records the data once every hour and can store data for more than 5 years. It can also export data quickly to a USB flash drive.
- Has three levels of management authority.

Application

- Online monitoring of Cr6+ concentration in drinking water and surface water.
- Online monitoring of Cr6+ concentration in municipal sewage inlet and outlet, pollution source discharge outlet, and industrial wastewater outlet.

Technical Specification

Range	0-5mg/L (Customizable)
Indication error	⩽±10%
Lower limit of quantification	≤0.01mg/L
Repeatability	≤2%
Resolution	0.0001mg/L (Decimal places can be set from 2 to 4 digits)
Display	7 inch display
Measurement mode	Continuous mode, periodic mode (1h-30d adjustable), fixed-point mode, controlled mode, manual mode optional
Calibration mode	Manual calibration and automatic calibration modes
Maintenance cycle	Usually once a month
Power supply	220V±22V,50Hz±0.5Hz
Output	4-20mA output
Communication mode	MODBUS RS-232/RS-485
Environmental conditions	Indoor temperature with adjustable temperature, recommended temperature: +5-40℃; humidity ⩽85% (no condensation)
Size	302*271*462mm (L*W*H)

PCM200-TFe Total Iron Water Quality Online Automatic Monitor

Principle



O-phenanthroline spectrophotometry. The high-valent iron ions in the water sample are reduced to ferrous ions by hydroxylamine hydrochloride. The ferrous ions react with o-phenanthroline to form a stable orange-red complex in a solution between pH 3 and 9. The absorbance is detected at a specific wavelength, and the iron concentration in the water sample is calculated.

Features

- The ten-way valve with sapphire valve core has high wear resistance, strong acid and alkali resistance, organic solvent resistance, long service life and high stability;
- A specially designed reference method is adopted, and slight displacement and slight pollution of the digestion pool will not affect the measurement value;
- It has the function of waste liquid separation to achieve separate discharge of high-concentration reaction waste liquid and low-concentration cleaning waste liquid;
- It has a dynamic dilution function, which can automatically adjust the dilution multiple according to the range set on site;
- It has built-in spike recovery, blank test, standard sample verification, zero point verification, span verification parallel sample test and other quality control functions, and can realize automatic, manual, remote and other ways to start the quality control function;
- It has the function of automatic fault diagnosis and abnormal information upload and recording, such as component failure, over-range alarm, over-standard alarm, reagent shortage alarm and other information;
- It has overheating protection: the heating temperature is too high, and the heater is automatically powered off;
- After abnormal reset and power failure, the instrument automatically discharges the residual reactants in the instrument and automatically returns to the initial working state. It has a power-on alarm function. When the power is turned on again after a power outage, the instrument will generate an alarm message;
- It has the function of recording the process log of the analytical instrument, the measurement data, and the alarm information storage. Based on the calculation of recording data once an hour, it can be stored for more than 5 years, and the data can be quickly exported to a USB flash drive;
- It has three levels of management authority.

Application

- Online monitoring of iron concentration in tap water, drinking water and surface water;
- Online monitoring of iron concentration in municipal sewage inlet and outlet, pollution source discharge outlet and industrial wastewater outlet.

Technical Specification

Range	0-20mg/L (customizable)
Indication error	≤±5%
Repeatability	≤2%
Resolution	0.0001 mg/L (Decimal places can be set from 2 to 4 digits)
Display	7 inch display
Measurement mode	Continuous mode, periodic mode (1h-30d adjustable), fixed-point mode, controlled mode, manual mode optional
Calibration mode	Manual calibration and automatic calibration modes
Maintenance cycle	Usually once a month
Power supply	220VAC±10%,50HZ±10%
Output	4-20mA output
Communication method	MODBUS RS-232/RS-485
Environmental conditions	Indoor temperature with adjustable temperature, recommended temperature: +5-40℃; humidity ⩽85% (no condensation)
Dimensions	302*271*462mm (L*W*H)

PCM200-TMn Total Manganese Water Quality Online Automatic Monitor

Principle

Formaldehyde oxime spectrophotometry. After the water sample is digested, under alkaline conditions, the divalent manganese ions in the water sample are oxidized by dissolved oxygen to tetravalent manganese ions, which react with the developer to form a reddish-brown complex. The color change is proportional to the manganese content in the sample solution. The absorbance is detected at a specific wavelength, and the manganese concentration in the water sample is calculated.



Features

- The ten-way valve with sapphire valve core has high wear resistance, strong acid and alkali resistance, organic solvent resistance, long service life and high stability;
- The specially designed reference method is adopted, and the slight displacement and slight pollution of the digestion tank will not affect the measurement value;
- It has the function of waste liquid separation to achieve the separate discharge of high-concentration reaction waste liquid and low-concentration cleaning waste liquid;
- It has a dynamic dilution function, which can automatically adjust the dilution multiple according to the range set on site;
- It has built-in spike recovery, blank test, standard sample verification, zero point verification, span verification parallel sample test and other quality control functions, and can realize automatic, manual, remote and other ways to start the quality control function;
- It has the function of automatic fault diagnosis and abnormal information upload and recording, such as component failure, over-range alarm, over-standard alarm, reagent shortage alarm and other information;
- Overheat protection: If the heating temperature is too high, the heater will automatically cut off the power;
- After abnormal reset and power failure, the instrument will automatically discharge the residual reactants in the instrument and automatically restore to the initial working state. It has a power-on alarm function. When the power is turned on again after power failure, the instrument will generate an alarm message;
- It has the function of recording the process log of the analytical instrument, the measurement data and the alarm information storage. The data is calculated by recording once every hour, which can be stored for more than 5 years, and the data can be quickly exported to a USB flash drive;
- It has three levels of management authority.

Application

- Online monitoring of manganese concentration in tap water, drinking water and surface water;
- Online monitoring of manganese concentration in municipal sewage inlet and outlet, pollution source discharge outlet and industrial wastewater outlet.

Technical Specification

Range	0-10mg/L (customizable)
Indication error	⩽±5%
Repeatability	⩽2%
Resolution	0.0001 mg/L (Decimal places can be set from 2 to 4 digits)
Display	7 inch display
Measurement mode	Continuous mode, periodic mode (1h-30d adjustable), fixed-point mode, controlled mode, manual mode optional
Calibration mode	Manual calibration and automatic calibration modes
Maintenance cycle	Usually once a month
Power supply	220VAC±10%,50HZ±10%
Output	4-20mA output
Communication method	MODBUS RS-232/RS-485
Environmental conditions	Indoor temperature with adjustable temperature, recommended temperature: +5-40℃; humidity ⩽85% (no condensation)
Dimensions	302*271*462mm (L*W*H)

PCM200-PO4 Orthophosphate water quality online automatic monitor

Principle

Ammonium molybdate spectrophotometry. In an acidic medium, orthophosphate forms a colored complex with a color developer and a reducing agent. Its absorbance is measured at a specific wavelength and is proportional to the concentration of orthophosphate.



Features

- The ten-way valve with sapphire valve core has high wear resistance, strong acid and alkali resistance, organic solvent resistance, long service life and high stability;
- The specially designed reference method is adopted, and the slight displacement and slight pollution of the digestion pool will not affect the measured value;
- It has the function of waste liquid separation to achieve the separate discharge of high-concentration reaction waste liquid and low-concentration cleaning waste liquid;
- It has a dynamic dilution function, which can automatically adjust the dilution multiple according to the range set on site;
- It has built-in spike recovery, blank test, standard sample verification, zero point verification, span verification, parallel sample test and other quality control functions, and can realize automatic, manual, remote and other ways to start the quality control function;
- It has the function of automatic fault diagnosis and abnormal information upload and recording, such as component failure, over-range alarm, over-standard alarm, reagent shortage alarm and other information;
- It has overheating protection: If the heating temperature is too high, the heater will automatically shut down;
- Power on after abnormal reset and power failure, the instrument automatically discharges the residual reactants in the instrument and automatically returns to the initial working state. With power-on alarm function, the instrument will generate an alarm message when it is powered on again after power failure;
- It has the function of recording the process log of the analytical instrument, the measurement data and the alarm information storage. It records the data once every hour and can store it for more than 5 years. The data can be quickly exported to a USB flash drive;
- It has three levels of management authority.

Application

- Online monitoring of orthophosphate in drinking water and surface water;
- Online monitoring of orthophosphate in municipal sewage outlets, pollution source discharge outlets, industrial wastewater outlets, secondary sedimentation tanks, and high-efficiency sedimentation tanks.

Technical Specification

Range	0-10 mg/L, in P (customizable) 0-30 mg/L, in PO4 (customizable) P and PO4 switchable with operator and above permissions
Indication error	≤±5% or ≤±0.005mg/L the bigger one
Detection limit	≤0.01mg/L
Lower limit of quantification	≤0.02mg/L
Repeatability	≤2%
Resolution	0.0001mg/L（Decimal places can be set from 2 to 4 digits）
Measurement cycle	23 minutes
Display	7-inch touch screen
Measurement mode	Continuous mode, periodic mode (1h-30d adjustable), fixed-point mode, controlled mode, manual mode optional
Calibration mode	Manual calibration and automatic calibration modes
Maintenance cycle	Usually once a month
Power supply	220VAC±10%，50HZ±10%
Output	4-20mA outputs
Communication method	MODBUS RS-232、RS-485
Environmental conditions	Indoor(temperature adjustable), recommended temperature: +5-40 ℃ ; humidity ≤85% (no condensation)
Dimensions	302*271*462mm（L*W*H）

EFM30 Electromagnetic Flowmeter

Principle



Electromagnetic flowmeter works based on Faraday's law of electromagnetic induction and is used to measure the volume flow of conductive liquids. The EFM30 electromagnetic converter core uses a high-speed central processing unit, whose calculation speed is very fast. The sensor uses non-uniform magnetic field technology and a special magnetic circuit structure with stable and reliable magnetic field and reliable measurement performance.

Application

- It is often used to measure the volume flow of highly corrosive liquids such as water, sewage, strong acids and alkalis, and uniform liquid-solid two-phase suspension liquids such as mud, ore pulp, and paper pulp.

Technical Specification

Nominal diameter series DN (mm)	DN15-DN2000
Flange	Comply with JBT 81-2015 plate type flat weld steel pipe flange standard carbon steel (optional stainless steel flange), other standard flanges can be customized
Rated pressure (high pressure can be customized)	DN10-DN250, PN<1.6MPa DN300-DN1000, PN<1.0MPa DN1200-DN2000, PN<0.6MPa
Lining material	Neoprene (CR), Polyurethane rubber (UR), Polytetrafluoroethylene PTFE (F4), Polyperfluoroethylene propylene FEP (F46), Teflon (PFA)
Electrode material	Stainless steel 316L, Hastelloy (HB and HC), titanium, tantalum, platinum-iridium alloy
Accuracy	±0.5% measured value (flow rate ≥ 1m/s); ±0.5% measured value ±2mm/s (flow rate < 1m/s)
Repeatability	0.2%
Communication protocol	MODBUS RS-485
Output	Current (4-20mA), pulse, frequency
Function	Empty pipe identification, electrode contamination
Power supply	AC power:85-245VAC,50/60Hz;DC power:22VDC-26VDC
Protection level	Split type: Transmitter: IP65, Sensor body: IP68; Integrated type: IP65
Sensor Cable	Standard cable 10m; maximum length not exceeding 100m
Ambient temperature	Integrated flowmeter -10℃-55℃, Sensor part of split flowmeter -10℃-60℃ Converter part of split flowmeter -10℃-55℃
Storage temperature	-40℃-65℃

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	< 0.01%/V of output range
Load impact	Negligible
Temp. effect	10℃-+60℃: the variation is < ±0.1%/10℃ (0.1 grade); The variation is < ±0.15%/10℃ (0.2 class) -30℃--10℃, 60℃-+85℃: The variation is < ±0.15%/10℃ (0.1 grade) The variation is < ±0.20%/10℃ (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℃-60℃
Storage temperature	-40℃-80℃

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	3mm
Operating temperature	0-60℃(Non-freezing state)
Temperature resolution	0.1℃
Storage temperature	-20-80℃
Working environment	Sediment content: <20g/L; PH: PH value is between 6 and 8.
Communication protocol	Standard ModBus RS485 protocol
Power supply range	10-30VDC
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

Product Center

You Tube

Linkedin

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