PROBEST®

A TRUST WORTHY

Water Analyzer Instruments ISO Factory



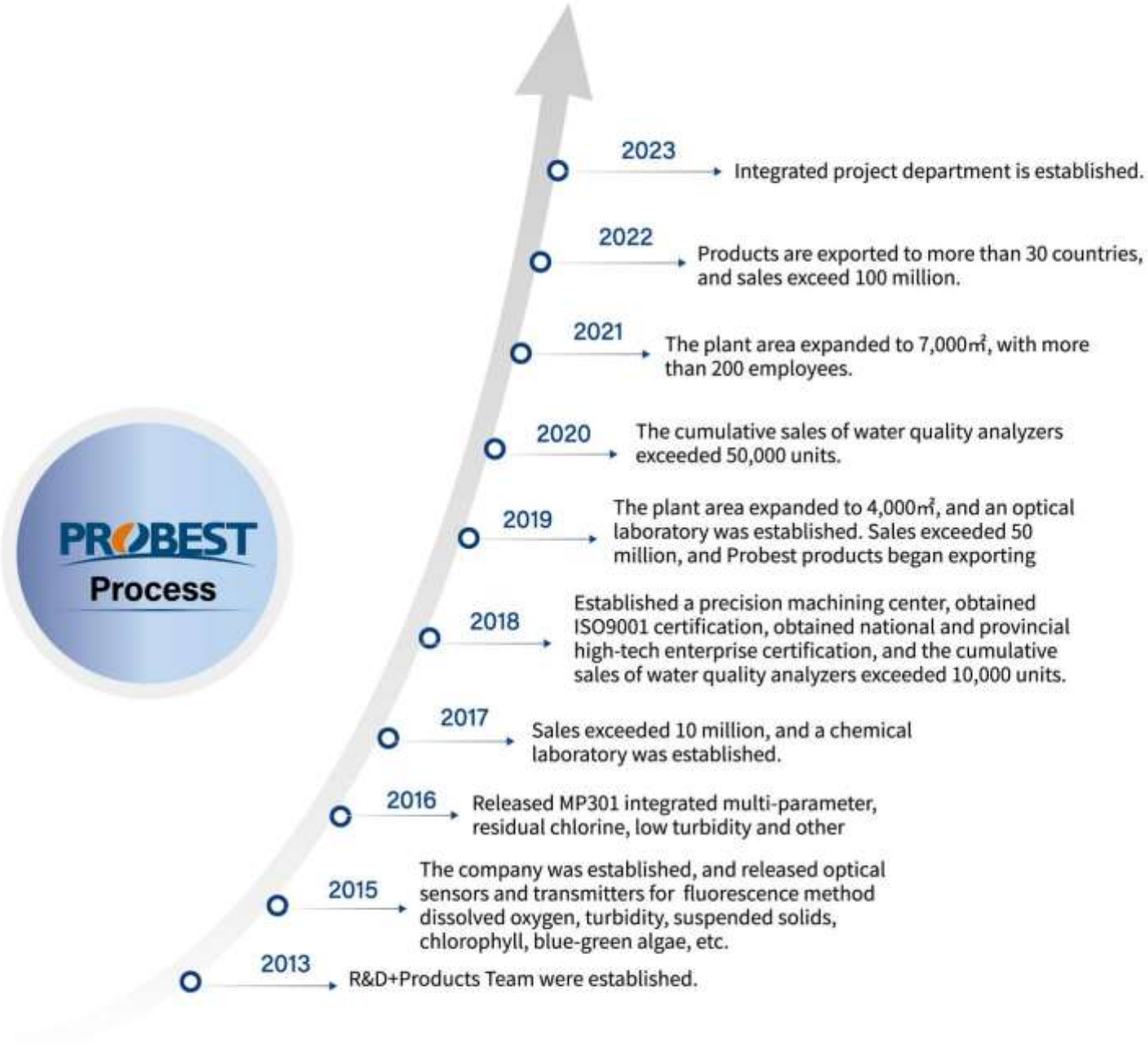
Fuzhou Probest Intelligent Technology Co., Ltd.

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



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 / Free 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, Free 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，HART（Optional equipment）
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, Free 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，HART（Optional equipment）
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

UNI-30 Universal Transmitter

Introduction



The UNI-30 Universal Transmitter is capable of measuring parameters including pH, DO, ORP, Conductivity, Turbidity, SS, UVCOD, UVNO3, Chlorophyll, Cyanobacteria, Ammonia Nitrogen, Free Chlorine, Transparency, Color, etc. It supports plug-and-play for sensors. Equipped with a 3.5-inch color LCD screen, the transmitter features a clear and concise operation interface with user-friendly navigation, along with functions such as data storage, historical data review, and data export.

Features

- Universal controller compatible with the company's sensors for pH, DO, ORP, Conductivity, Turbidity, SS, UVCOD, UVNO3, Chlorophyll, Cyanobacteria, Ammonia Nitrogen, Free Chlorine, Transparency, Color, and other parameters;
- Visual operation via a 3.5-inch color LCD screen, with Chinese-English bilingual navigation menu and comprehensive interface content;
- Multiple data output methods: 4~20mA current signal and MODBUS RS485;
- Enhanced non-metallic housing with excellent corrosion resistance;
- Enhanced electromagnetic compatibility (EMC) and weather-resistant design, suitable for harsh environments such as general industrial sites;
- Automatic error and alarm message prompts, with alarm signal upload functionality;
- Equipped with time display, data storage, and historical data review functions;
- Supports wall mounting/panel mounting/pipe clamp mounting.

Technical Specifications

Display	3.5-inch color LCD display
Power Supply	AC Power Supply: 100-240VAC, 50Hz/60Hz; DC Power Supply: 24VDC
Output	2 channels of 4～20mA
Relay	2 channels of SPDT relays, with programmable response parameters and response values
Communication Protocol	MODBUS RS485
Main Material	Polycarbonate
Storage Temperature	-25℃ to 70℃
Operating Temperature	-20℃ to 60℃
Protection Class	IP65
Dimensions	Overall Dimensions: 155*155*120mm (Length*Width*Height); Cutout Dimensions: 139*139mm (Width*Height)
Weight	0.85KG

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.

Applications

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

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.



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-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

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	-10-100℃
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 230mm;Transmitter:145*125*162mm(L*W*H)
Mounting thread	Upper thread R3/4
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.
- 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

PPH-500E pH Online Analyzer

Introduction



PPH-500E 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.
- 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

Measurement range	0-14pH
Temperature range	0-80℃(Non-freezing)
Pressure range	≤0.3Mpa
Zero potential pH value	7±0.5pH(30mV)
Slope	≥95%
Internal Resistance	≤250MΩ
Main material	ABS + glass fiber composite shell
Response time	≤30 seconds (Reach 95% of the end value)(After stirring)
Mounting thread	Upper End / Lower End: NPT 3/4
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 34mm*Length145mm;Transmitter:145*125*162mm(L*W*H)
Weight	Sensor:0.2KG;Transmitter:1.35KG
Cable length	Standard: 10 meters, maximum extendable to 50 meters

PPH-500F Industrial PH Online Analyzer

Introduction



The PPH-500F Series industrial pH sensors can be matched with different configurations according to various application scenarios, including: standard models for sewage and conventional industrial scenarios; salt bridge-free models designed for dirty, messy and harsh environments; and PTFE salt bridge models with ion traps that can handle scenarios with high salt, high heavy metal ions, and high ammonia ions. Additionally, different sensitive membranes can be selected based on water quality conditions, such as high-temperature type, low-temperature type, acid-alkali resistant type, hydrofluoric acid resistant type, and low-impedance type.

Main Features

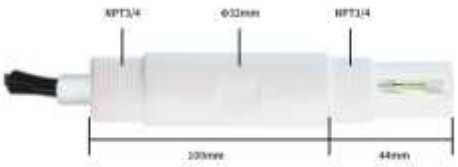
- Excellent repeatability and stability;
- Dual liquid junction structure design, featuring strong anti-pollution ability and high temperature resistance;
- IP68 waterproof rating;
- Durable sensitive membrane, resistant to mechanical impact.
- Customizable electrode insertion depth, salt bridge material can be customized according to site requirements;
- With time display, data storage and historical data viewing function;
- Optional data wireless transmission module.

Application

- The series covers a wide range of application scenarios:
- Pure water scenarios such as boiler water systems and pure water treatment systems;
- High-organic matter scenarios like chemical industry and printing and dyeing;
- Hydrofluoric acid-containing scenarios including semiconductor industry, petrochemical industry, and steel wastewater;
- High-temperature scenarios such as biopharmaceuticals, food and beverage, chlor-alkali, and petrochemical industry;
- Other various industrial water quality scenarios (e.g., ammonia water, high alkali, high chlorine, high salt, high heavy metals, sulfides).

Technical Specifications

Measuring range	0-14pH
Temperature range	Standard: 0-100℃; High-temperature model: 0-130℃; Low-temperature model: -15-80℃
Withstand voltage range	0-3Bar, 8Bar MAX
Temperature compensation type	PT1000
Factory slope	>95%
Zero potential	7±0.25pH
Response time	<30S
Casing material	Electrode material: Glass electrode; Sheath material: ABS, PPS, PTFE (optional)
Protection Rating	IP68
Power supply	AC power supply: 85-500VAC; DC power supply: 9-36VDC
Output	3 ways 4-20mA

Relay	Three-way relay, program setting response parameters and response values
Communication protocol	MODBUS RS485
Cable	Standard: 10 meters, maximum extendable to 50 meters
PPS shell size	
PTFE sheath shell size	

POP-500A RS485 Digital ORP Sensor

Main Features



- Power supply and output isolation design to ensure electrical safety
- Power supply and communication chip built-in protection circuit, anti-interference ability
- With comprehensive protection circuit design, without additional isolation equipment can work reliably
- The circuit is built inside the electrode, which has good environmental tolerance and is easier to install and operate
- RS485 transmission interface, MODBUS RTU communication protocol, two-way communication, can receive remote instructions
- The communication protocol is simple and practical, and it is extremely convenient to use
- Output more electrode diagnosis information, more intelligent
- Internal integrated memory, can still remember the stored calibration and setting information after power off.

Technical Specifications

Shell material	PPS
Measuring range	-2000-2000 mV
Resolution	1 mV
Precision	2 mV
Temp. compensation mode	Automatic or manual
Temp. compensation	10.0 ~ 110.0℃
Resolution	0.1℃
Precision	0.5℃
Electrode voltage resistance	0 -4 bar
Electrode temp. resistance	0.0-60.0℃
Mounting thread	3/4 inch Fore and aft thread
Power	12VDC
Cable length	Standard: 10 M

POP-500 ORP Online Analyzer

Measurement Principle



POP-500 ORP 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 ORP value of the measuring solution and potential of working battery to realize the ORP on-line monitoring.

Main Features

- Good repeatability and stablity.
- Simple cleaning and activation,quite high balance speed.
- Quick and easy field installation,adopting terminal connection.
- With time display, data storage and historical data viewing function;
- Optional data wireless transmission module.

Application

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

Technical Specifications

Main materials	Black Polypropylene,Ag/Agcl Reference Gel
Measurement range	-2000mV-+2000mV
Pressure range	≤0.6Mpa
Zero potential mV value	86±15mV（25℃）(in pH 7.00 solution containing saturated quinhydrone)
Range	≥170mV（25℃）(in PH 4 solution containing saturated quinhydrone)
Response time	≤10 sec (Reach 95% of the end value)(After stirring)
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
Medium temperature	0-80℃（Non-freezing）
Dimensions	Sensor:Dia28.7mm*L 195mm Transmitter:145*125*162mm(L*W*H)
Weight	Sensor:0.2KG;Transmitter:1.35KG
Cable length	Standard:10 m, can be extended 20 m

POP-500E ORP Online Analyzer

Measurement Principle



POP-500E ORP 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 ORP value of the measuring solution and potential of working battery to realize the ORP on-line monitoring.

Main Features

- Good repeatability and stablity.
- Simple cleaning and activation,quite high balance speed.
- Quick and easy field installation,adopting terminal connection.
- With time display, data storage and historical data viewing function;
- Optional data wireless transmission module.

Application

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

Technical Specifications

Measurement range	-2000mV-+2000mV
Pressure range	≤0.3Mpa
Zero potential mV value	86±15mV（25℃）(in pH 7.00 solution containing saturated quinhydrone)
Main material	ABS + glass fiber composite shell
Response time	≤30 sec (Reach 95% of the end value)(After stirring)
Mounting thread	Upper End / Lower End: NPT 3/4
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
Medium temperature	0-130℃（Non-freezing）
Dimensions	Sensor:Dia：34mm*L 145mm Transmitter:145*125*162mm(L*W*H)
Weight	Sensor:0.2KG;Transmitter:1.35KG
Cable length	Standard:10 m, can be extended 50 m

POP-500B ORP Online Analyzer

Main Features



- 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
- With time display, data storage and historical data viewing function.
- Optional data wireless transmission module.

Technical Specifications

Measuring range	±2000 mV
Main material	316L Stainless steel ;Cable: PUR
Resolution	0.1mV
Repeatability	±2 mV
Precision	±5 mV
Electrode withstand voltage	0-0.1Mpa
Electrode withstand temp.	0-45℃ (Non-freezing)
Communication protocol	MODBUS RS485
Power supply	AC:85-500VAC;DC:9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays,programmed response parameter and response value
Protective rate	Sensor:IP68/NEMA6P;Transmitter:IP66/ NEMA4X
Dimensions	Sensor:Dia34mm*L 230mm;Transmitter:145*125*162mm(L*W*H)
Cable length	Standard cabel:10M,Max extended to100M.

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;
- 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℃
Linear error	3% of the measurement value
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 230mm;Transmitter:145*125*162mm(L*W*H)
Mounting thread	Upper R3/4
Cable length	Standard: 10m, up to 200m

PEC-500A Digital Conductivity Sensor

Measurement Principle

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



Features

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

Applications

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

Technical Specifications

Main materials	PPS Shell
Measurement range	0.0-200.0 us/cm ; 0-2000us/cm ; 0.01-20.00ms/cm (Automatic switch)
Accuracy	±2%F.S.
Resolution	Depending on the range 0.01ms/cm,0.1us/cm,1us/cm(Automatic switch)
Repeatability	±1%
Temperature compensation	0-60℃
Pressure range	0-0.1 Mpa
Electrode Temp. resistance	0-60℃(Non-freezing)
Power supply	12VDC
Communication Protocol	MODBUS RS485
Dimension	Dia26mm*L 166mm
Protective rate	IP68 (Protective casing)
Mounting thread	3/4" thread
Cable length	Standard:10M,the maximum can be extended 200m

PEC-600B Inductive Conductivity Sensor

Measurement Principle



PEC-600B inductive conductivity sensor has the function of measuring conductivity and various salinity, acid and alkali concentrations and digitally outputting them. The signal processing circuit is integrated into an ASIC with an embedded MCU, so that the sensor has been calibrated before leaving the factory, and the calibration value is permanently stored in the probe. It has its own temperature compensation function, and the temperature value is also directly output digitally.
The inductive sensor has the ability to resist contamination from oil-contaminated and process-coated media. The sensor has no plates directly contacting the test solution, there is no polarization phenomenon, and it is not affected by the coating or film form; the material of the sensor has the advantages of anti-pollution and corrosion resistance.

Features

- The sensor probe is non-contact with the measured solution, and does not require frequent maintenance and care;
- Can directly output RS485 signals;
- Low voltage and low power design, the probe can be directly applied to a single 3.5V power supply;
- No metal material is in contact with the water body, and polarization or scaling will not occur;
- Suitable for medium and high conductivity, up to 2000ms/cm can be measured;
- With built-in temperature compensation function;
- With digital filtering function, strong anti-interference ability;
- The electrode shell is made of high-quality material with good corrosion resistance, electrical insulation and anti-aging endurance.

Applications

- Suitable for seawater and wastewater treatment, electroplating processes, film production processes, cooling tower monitoring, internal wastewater treatment processes, acid and alkali solution and conductivity monitoring, tanneries, corrosive treatment processes, washers, automotive engineering, conductivity monitoring of cleaning processes (CIP).

Technical Specifications

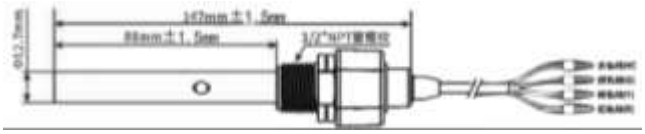
Item Description		PEC-600B inductive conductivity sensor
Test Range	**Conductivity**	0-2000ms/cm
	Salinity	0-72ppt(0-100ms/cm)
	Temperature	PP Material：0-50℃；PFA Material：0-100℃
	Acid concentration	1. Hydrochloric acid (HCL): 0-20% or 25-40% 2. Nitric acid (HNO3): 0-25% 3. Sulfuric acid (H2SO4): 0-25% or 35-85% or 85-92% or 92-100%
	Base concentration	1. Caustic soda (NaOH): 0-18% or 20-40% 2. Potassium hydroxide (KOH): 0-30%
	Salt concentration	Sodium chloride（NaCL）:0-30%
Accuracy	**Conductivity**	±1.5% FS
	Salinity	±1.5% FS
	Temperature	±0.5℃

Temperature compensation	PT1000
Communication	Standard MODBUS RTU protocol
Supply voltage	DC 12V
Cable length	Standard 10 meters, can be extended to a maximum of 100 meters

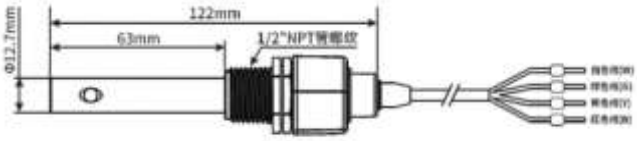
PEC-500E Conductivity Sensor

Product Images			
Model	**PEC-500E-A**	**PEC-500E-C**	**PEC-500E-D**
Electrode constant	K=0.01	K=0.1	K=1.0
Measurement range	0.055~20μS/cm	0.5~200μS/cm	1.0~2000μS/cm
Linear error	1.5%FS	1.5%FS	1.5%FS
Temperature compensation	NTC10K	NTC10K	NTC10K
Pressure range	0.6MPa (Max)	0.6MPa (Max)	0.6MPa (Max)
Tolerance temperature	0~50℃	0~50℃	0~50℃
Main material	316L Stainless Steel	316L Stainless Steel	316L Stainless Steel
Mounting thread	1/2"NPT	1/2"NPT	1/2"NPT
Cable length	10m (Max. 30m)	10m (Max. 30m)	10m (Max. 30m)

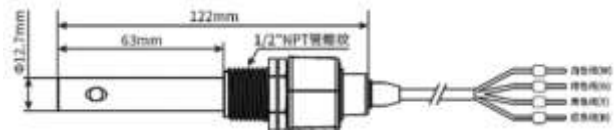
Electrode Dimensions



PEC-500E-A（K=0.01）

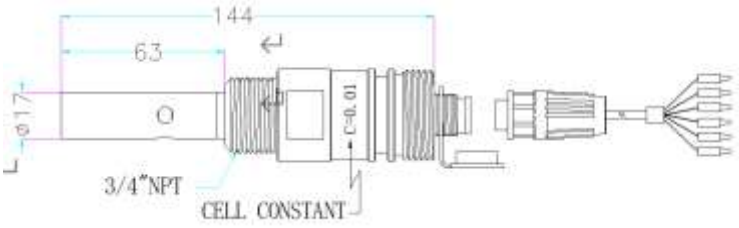
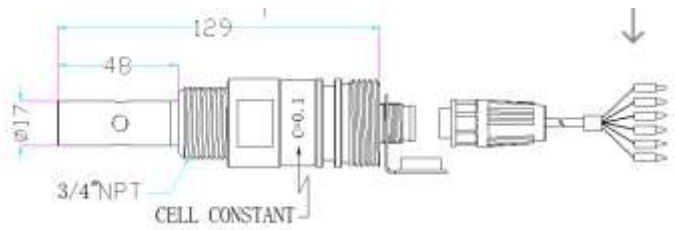


PEC-500E-C（K=0.1）



PEC-500E-D（K=1.0）

PEC-500F Conductivity Sensor

Product Images			
Model	**PEC-500F-A**	**PEC-500F-B**	**PEC-500F-C**
Electrode constant	K=0.01	K=0.05	K=0.1
Measurement range	0.05~20.0μS/cm	0.05~100.0μS/cm	0.1~200.0μS/cm
Linear error	1.0%FS	1.0%FS	1.0%FS
Temperature compensation	NTC30K	NTC30K	NTC30K
Pressure range	0.6MPa (Max)	0.6MPa (Max)	0.6MPa (Max)
Tolerance temperature	0~80℃	0~80℃	0~80℃
Main material	Titanium Alloy + CPVC	Titanium Alloy + CPVC	Titanium Alloy + CPVC
Mounting thread	3/4"NPT	3/4"NPT	3/4"NPT
Cable length	5m (Max. 30m)	5m (Max. 30m)	5m (Max. 30m)
Electrode Dimensions	 PEC-500F-A（K=0.01）、PEC-500F-B（K=0.05）		
	 PEC-500F-C（K=0.1）		

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*252.3mm,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-600A Dissolved Oxygen Online Analyzer

Measurement Principle

PFDO-600A 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	≤0.2Mpa
Calibration	Air automated calibration, sample calibration
Main material	Body:SUS316L;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:Dia30mm*190.2mm,Transmitter:145*125*162mm(L*W*H)
Weight	Sensor:0.5KG;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

PMDO-700 Series On-line Trace Dissolved Oxygen Analyzer

Measurement Principle



The trace dissolved oxygen analyzer is a highly sensitive on-line analytical instrument. Composed of a main unit, sensor, flow cell, and cable, it features high sensitivity, fast response, and user-friendly operation, specifically designed for measuring trace-level (ppb-level) oxygen concentration in gas-water/gas media.

Oxygen measurement adopts the electrochemical polarography method. During measurement, the oxygen sensor undergoes a redox reaction to generate a diffusion current, whose magnitude is proportional to the oxygen concentration in the sample.

Features

- High-resolution color touch screen: 800×480 resolution, Chinese menu, easy operation.
- Real-time curve display: Simultaneous digital and curve presentation for intuitive results.
- Multi-channel setting: Supports 4 oxygen sensors for cost efficiency..
- Convenient installation & maintenance: Direct fixed mounting (no base needed); rear wiring for reliability
- Plug-in sensor design: Facilitates easy maintenance and replacement.
- High precision & sensitivity: Detection limit down to 0.1μg/L or 0.01μg/L; resolution 0.1μg/L or 0.01μg/L.
- Fast response: Typically 3 minutes from air to μg/L-level concentration.
- Long maintenance cycle & low consumable cost: Electrode maintenance every 6–8 months under normal use.
- Large data storage: Holds 1.5 million records with historical curve query function.
- 4–20mA current output and RS485 communication.

Applications

- Trace dissolved oxygen analysis for deoxygenated water in power plants and waste heat boilers.
- Trace oxygen monitoring in ultra-pure water processes for semiconductor chip packaging and high-end PCB manufacturing.

Technical Specifications

Display	800*480 color touch screen
Channels	Up to 4 dissolved oxygen channels
Measurement Range	0.01μg/L–20.00mg/L
Resolution	0.1μg/L or 0.01μg/L (optional)
Measurement Error	±1.5%FS or 1.0μg/L (whichever is larger)
Response Time (T90)	<30s
Medium Temperature	0–50℃
Temperature Resolution	0.1℃
Sample Flow Rate	100–400mL/min
Working Environment	Temperature: 0–50℃; RH: ≤90%
Output Current	0/4–20mA
Current Error	±0.01mA
Max. Load Resistance	800Ω (at 20mA)

Alarm Outputs	2-way alarm relays
Power Supply	AC 220V / DC 24V
Data Storage	1.5 million records
Communication	RS485
Weight	800g
Installation	Cutout/wall-mounted/pipeline
Cutout Size	138mm*138mm

PMDO-800 Series Portable Trace Dissolved Oxygen Analyzer

Measurement Principle



The portable trace dissolved oxygen analyzer is a highly sensitive analytical instrument. Comprising a handheld controller, sensor, flow cell, and cable, it features high sensitivity, rapid response, and user-friendly operation, specifically designed for measuring trace-level (ppb-level) oxygen concentration in gas-water/gas media.

Dissolved oxygen measurement is based on the electrochemical polarography method (Clark electrode). During measurement, the oxygen sensor undergoes a redox reaction to generate a diffusion current, with its magnitude proportional to the oxygen concentration in the sample.

Features

- Fastest Response & Measurement: Typically takes only 3 minutes to transition from air to μg/L-level concentration.
- High precision & sensitivity: Detection limit reaches 0.1 μg/L or 0.01 μg/L; resolution 0.1 μg/L or 0.01 μg/L.
- Plug-in Sensor Design: Enables easy maintenance and replacement.
- Long-life electrode technology: Prolongs service life, reducing replacement costs.
- Simplest Operation & Calibration: Ready for measurement on startup—no prolonged electrode polarization needed.
- Long maintenance cycle & low-cost consumables: Electrode maintenance every 4–8 months under normal use.
- Low-power Design & Extended Operation: Dry battery-powered, lasting over 1,200 hours continuously.
- High protection rating & humanized design: Full-body waterproofing; magnetic attachment for portability.

Applications

- Trace dissolved oxygen analysis for deoxygenated water in power plants and waste heat boilers.
- Trace oxygen monitoring in ultra-pure water processes for semiconductor chip packaging and high-end PCB manufacturing.

Technical Specifications

Measurement Range	0.01 μg/L–20.00 mg/L
Resolution	0.1 μg/L or 0.01 μg/L (optional)
Zero Error	< 1 μg/L
Response Time (T90)	< 20 s
Measured Medium Temperature	0–45℃
Temperature Resolution	NTC thermistor, accuracy: 0.1℃
Sample Flow Rate	160–500 mL/min (constant)
Calibration	Air slope calibration, zero-point calibration
Compensation	Automatic temperature compensation; manual atmospheric pressure & salinity setting
Working Environment	Temperature: 0–45℃; RH: ≤90%

Power Supply	4× AA alkaline batteries (≥1,200 hours)
Protection Rating	Instrument: IP67; probe: IP68
Dimensions	164 mm (L) × 75 mm (W) × 17 mm (H)
Weight	300 g (with instrument, probe, flow cell)
Accessory Kit	Electrolyte, permeable membrane, flow cell

PDCL-400 Free Chlorine/Chlorine Dioxide Online Analyzer

Measurement Principle



PDCL-400 Free chlorine/chlorine dioxide adopts advanced principle of constant voltage to measure Free 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 Free 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

- Free 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 Free Chlorine Online Analyzer

Measurement Principle



The PDCL-400A digital Free chlorine/chlorine dioxide sensor uses advanced constant voltage principles to measure Free 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 Free Chlorine or Chlorine Dioxide Oline Analyzer

Introduction



PDCL-500M Free 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 Free Chlorine or total chlorine or chlorine dioxide analyzer

Measurement Principle



PDCL-600 Membrane method Free 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

PDCL-700 Online Free Chlorine Analyzer

Measurement Principle



PDCL-700 membrane-type free chlorine analyzer is independently developed based on the technical route of membrane-covered three-electrode method. The electrode adopts an optimized membrane process and sensing structure, boasting excellent anti-surfactant interference performance. It features low pH dependence and is suitable for a variety of water environments, including tap water, rural drinking water, and secondary water supply systems. With fast sensor response and stable data output, the analyzer ensures measurement accuracy and reliability while offering greater economic efficiency and easy maintenance, meeting the demands for continuous and accurate monitoring in different scenarios.

Features

- The membrane-covered design effectively reduces the impact of pH fluctuations on measurement results, enabling wide applicability.
- Equipped with a flow cell and electrode foolproof design for easy installation.
- Internal processing of digital signal data, free from electromagnetic interference.
- Stable operation and rapid response speed.
- An aviation plug is designed at the tail, with a protection grade of IP68.
- Low operation and maintenance costs with minimal maintenance workload.

Applications

- Conventional drinking water, rural drinking water, tap water, and secondary water supply.
- Chemical dosing equipment, circulating water, and cooling water systems.

Technical Specifications

Measurement Range	0.05mg/L - 20.00mg/L
Resolution	0.01mg/L
Measurement Error	Whichever is larger between ±5% or ±0.05mg/L
Sample Flow Rate	250 - 500 mL/min
Operating Temperature	0 - 40℃ (non-freezing)
Storage Temperature	0 - 50℃
Pressure Range	≤0.3Mpa
pH Range	pH 4 - 9
Power Supply	AC: 85 - 500VAC; DC: 9 - 36VDC
Output	3 Channels of 4 - 20mA
Relay	3 channels, with program-set response parameters and values
Communication Protocol	MODBUS RS485
Dimensions	Sensor: 30*242mm (Diameter*Length); Transmitter: 145*125*162mm (Length*Width*Height)
Protection Grade	Sensor: IP68/NEMA6P; Transmitter: IP66/NEMA4X
Weight	Sensor: 750g; Transmitter: 1.35kg
Cable Length	3m cable as standard

CL-201 Free Chlorine or total chlorine analyzer

Measurement Principle



CL-201 adopts DPD colorimetric method to measure concentration of free chloride 、tatal chlotide .The analyzer has high accuracy,high cost performance and low maintenance.Widely used in chloride measurement of drinking water pipe network and chlorination process.

Features

- DPD standard colorimetric method.
- Equipped with a 7-inch touchscreen for display and operation, user-friendly and easy to master.
- Continue running for 30 days without replacing reagent,low operation and maintenance cost.
- Automatic cleaning function to reduce maintenance.
- Features data storage function and supports data export via SD card.
- Reagent allowance alarm function.
- Measurement pattern：Continuous measurement，Periodic measurement（adjustable).
- Supports dual power supply: AC220V or DC24V.
- Supports external trigger measurement.
- Supports relay output for external water pump control.

Applications

- Suitable for chloride measurement of tap water pipeline and chlorination process of tap water,circulating cooling water,sewage and etc.

Technical Specifications

Measurement range	0~10mg/L free chloride ，0~10mg/L or 0~20mg/L total chloride
Accuracy	free chloride:0-5mg/L：±5% of reading or ±0.03mg/L Cl2，whichever is greater;5-10mg/L：±10% Total chloride:0-5mg/L：±5% of reading or ±0.03mg/L Cl2，whichever is greater;5-20mg/L：±10%
Repeatability	±5%
Detection limit	0.03mg/L
Display	7 inch display
Calibration	Use the default calibration curve
Operation conditions	Sample flow rate：200-400mL/min Sample inlet pressure：0.1~5bar Sample temperature：5~40℃
Power supply	220VAC±10% or 24VDC
Output	4-20mA
Communication protocol	MODBUS RS485
Relay	2 sets of relay，concentration alarm can be set
Storage temperature range	-15～60℃
Storage humidity	10-90%,non-condensing
Dimension	350*177*450mm（L*W*H）
Weight	About 16KG
Installation ways	Wall-mounted

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
Storage temperature	-15-50℃
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
Storage temperature	-15-50℃
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

PTU-500 Turbidity Online Analyzer

Measurement Principle

PTU-500 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 and surface water.
- Turbidity online monitoring of water environmental protection and Aquaculture water.

Technical Specifications

Measurement range	0.01-1000 NTU
Measurement accuracy	< ±5% of the reading or ±0.3NTU,the bigger one
Repeatability	±2%
Resolution	0.01NTU , 0.1NTU , Depend on the measuring range
Pressure range	≤0.1Mpa
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:Dia34mm*L 209mm 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

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 water sample. The turbidity value is obtained by calculating the relationship b etween 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 (Standard Version), ABS + Titanium Alloy (Seawater Version) Seal: Nitrile Butadiene Rubber (NBR); Cable: Polyurethane (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,,the maximum may be extended to 30m

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 Protocols	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 244mm 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 263mm
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 213mm
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 Spectroscopic Nitrate Online Analyzer

Measurement Principle



NO3 absorbs at 210 nm UV light. When the Spectroscopic 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.
- Spectroscopic 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 381mm(1mm)， Diam69mm*Length 382mm(2mm) 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 Spectroscopic 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: DIA 69mm*L 382mm(2mm) DIA 69mm*L 385mm(5mm) DIA 69mm*L 430mm(50mm) 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 Spectroscopic 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):0-1000mg/l COD (5mm),0-100mg/L COD (25mm);BOD (using KHP calibration):0-750mg/Lmg/Lmg/L BOD(5mm),0-75mg/L BOD(25mm);TOC(using KHP calibration):0-400mg/L TOC(5mm),0-40mg/L TOC(25mm) Turbidity:10-1000 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:DIA 34mm*L 223m（5mm）;DIA 34mm*L 244m（25mm）; 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

PUVCOD-500 Spectroscopic Organic OnLine Analyzer

Measurement Principle

Based on the UV absorption reaction by organic matter, the PUVCOD-500 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):0-1000mg/l COD (5mm);BOD (using KHP calibration):0-750mg/L BOD(5mm);TOC(using KHP calibration):0-400mg/L TOC(5mm) Turbidity:10-1000 NTU(5mm)
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:POM； 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 38mm*Length 224mm ;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,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;
- 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;
- With automatic fault diagnosis function, with abnormal information record, upload function, such as parts failure, over-range alarm, alarm and other information;
- Three-level password permission management;
- With data storage function, data can be displayed in tables and curves.
- 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 Ø8 Water outlet: Connect straight to a hard tube Ø12
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

Free 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 free 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

Free 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-2000 Water Quality Monitoring System (electrode method)

Introduction



PWQ-2000 water quality monitoring system is a system that integrates pipe network water quality monitoring sensors, data processing units, and internal water flow pipeline units. It can continuously measure temperature, PH, turbidity, disinfectant indicators, and can extend water quality parameters such as conductivity and ORP.

The disinfectant index adopts the constant voltage method, and the two disinfectant in dexes of Free chlorine and chlorine dioxide are optional; the electrode structure is sim ple, easy to clean and replace, no need to replace the diaphragm and reagent, and si mple 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

Free 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 / free 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)
Free 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)

PB-060-AY Compact Water Quality Monitoring Buoy

Introduction



Small-scale buoy monitoring is a modern method of water quality monitoring. By utilizing buoy observation technology, water quality can be monitored continuously, around the clock, at fixed locations, with data transmitted in real time to a monitoring center. A complete monitoring buoy consists of a buoy body and mooring system, monitoring instruments (temperature, pH, dissolved oxygen, conductivity, turbidity, chlorophyll, cyanobacteria, UV-COD, ammonia nitrogen, etc.), a data acquisition and transmission unit, a power supply unit (battery pack and solar power system), (for ocean market we couldn't export the battery need to purchase in local market) and a protection unit (GPS, navigation lights, alarms). It enables remote, real-time monitoring of water quality and various other parameters. The remote wireless monitoring system, built on wireless local area network (WLAN) technology (need local supplier do also), eliminates the need for cable installation. It allows for the rapid and convenient deployment of front-end monitoring equipment at required locations, offering high practicality, flexibility, and scalability.

Technical Specifications

Buoy Dimensions	Buoy dimensions: 0.6 m×0.6 m× 0.7 m (W × D × H); Buoy net weight: 35 kg
Carrying Capacity	Can accommodate 6 probes with a diameter ⩽ 75 mm; Probe length ⩽ 400 mm
Buoy Power Supply System	Battery capacity: 42 Ah; equipped with 72 W solar panel; power supply mode: DC 12 V (optional)
Low-Power Design	Instruments, data acquisition modules, and indicator lights are all low-power models, reducing power supply load
Power Supply Capacity	Custom configuration allows for a battery life of over 30 days even in cloudy or rainy weather
Position Indication	Equipped with warning lights for clear visibility at night, preventing collisions and damage
Anti-Capsizing Design	Utilizes the "roly-poly" principle to lower the center of gravity and prevent capsizing
Easy Deployment	Excellent environmental adaptability, ideal for urban rivers, small lakes and reservoirs, wetland parks, etc.
Easy Maintenance	Sensors use quick-connect plugs for easy maintenance
Interference Resistance	Probes are installed separately to prevent interference between monitoring stations
Multi-Parameter Water Quality Monitoring	pH range: 0 – 14 pH; Temperature: 0 – 60° C Conductivity range: 10 μS/cm – 200 mS/cm Dissolved oxygen range: 0 – 20 mg/L, 0 – 200% saturation; Temperature: 0 – 45° C Turbidity range: 0.01 – 4000 NTU Chlorophyll range: 0 – 500 μg/L Cyanobacteria range: 0 – 300,000 cells/mL UV-COD range: 0 – 2000 mg/L COD (2 mm path length) Ammonia nitrogen range: 0.1 – 3000 mg/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	60M(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 :	
Principle	Glass electrode method
Range	0-14 pH(With ion electrode:5- 10 pH)
Resolution	0.01 pH
Accuracy	±0.1 pH
Conductivity sensor:	
Principle	Conductivity cell method
Range	10us/cm-200ms/cm
Resolution	0.1us/cm-0.01ms/cm(Depending on the range)
Accuracy	±1% or 1uS/cmL, the bigger one
DO sensor:	
Principle	Fluorescence
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
Chlorophyll sensor:	
Principle	Fluorescence
Range	0-500 ug/L
Resolution	0.01 ug/L-0.1 ug/L, Depending on range
Accuracy	±5% of the signal level corresponding value of 1ppb Rhodamine B Dye
Ammonia Sensor:	
Principle	Ion selection
Range	0.1-3000mg/L-N
Resolution	0.01mg/L-N
Accuracy	±5% or ±0.2mg/L
Chloride Sensor:	
Principle	Ion selection
Range	3-3500mg/L
Resolution	0.01mg/L
Accuracy	±10% or ±0.2mg/L
Depth (Pressure):	
Principle	Pressure-sensitive Method
Range	0-61m(Maximum withstand pressure depth:30M)
Resolution	2cm
Accuracy	±0.3%

Temperature:	
Principle	Thermistor method
Range	0℃-60℃(Mainframe's work temp. 0-40℃)
Resolution	0.1℃
Accuracy	±0.5℃
ORP Sensor:	
Principle	Glass electrode method
Range	-1000mV -+1000mV
Resolution	1mV
Accuracy	±5mV
Turbidity sensor:	
Principle	Light scattering method
Range	0-1000NTU
Resolution	0.1NTU
Accuracy	± 5% or 0.3NTU, the bigger one
Blue-green algae sensor:	
Principle	Fluorescence
Range	0-300,000cells/mL
Resolution	20cells/mL
Accuracy	±10% of the signal level corresponding value of 1ppb Rhodamine B Dye
Nitrate Sensor:	
Principle	Ion selection
Range	0.5-3000mg/L-N
Resolution	0.01mg/L-N
Accuracy	±10% or ±0.2mg/L
Fluoride Sensor:	
Principle	Ion selection
Range	0.5-10000mg/L
Resolution	0.01mg/L
Accuracy	±10% or ±0.2mg/L
Potassium ion sensor	
Principle	Ion selection
Range	0.5-5000 mg/L
Resolution	0.01mg/L
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 etc. 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	√	√
Oil-in-Water	√	√
Colority	√	√
Ion((NH4N, NO3N, K^+, CL^-, and F^-)	√	√
PH	√	√
Conductivity	√	√
ORP	√	√
COD	√	√

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 & Weight	203*100*43mm;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	≤±1.0%F.S.
	**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
	**COD**	**Principle**	UV absorption method
		Measure Range	0-500mg/l COD (5mm)
		Resolution	COD/BOD/TOC:0.01 mg/l
		Accuracy	5% (using KHP calibration)

PDG900-PH Bench top pH Analyzer

Measurement Principle

The PDG900-PH benchtop pH analyzer is a precision instrument for measuring the pH and temperature of solutions. It features an IP54-rated waterproof housing and mechanical buttons for enhanced interactive feedback. Equipped with a large backlit LCD display, it provides various prompt messages. It is suitable for laboratory use.



Features

- Can measure pH and temperature.
- Five-point pH calibration.
- Microcomputer processor, ensuring high measurement accuracy and good repeatability.
- Ergonomically designed instrument for easier use.
- Extra-large font display with clear contrast LCD.
- Dual power supply (AC and DC).
- Low battery warning function.
- Large-capacity storage space for 750 sets of measurement values.

Technical Specifications

pH	Measurement range	0.00-14.00pH
	Resolution	0.01pH
	Accuracy	±0.01pH
Temperature	Measurement range	0-80℃
	Resolution	0.1℃
	Accuracy	±0.2℃
	Endpoint sensing and locking	Available
pH Calibration		1-5 point calibration
pH Temperature Compensation Range		Automatic/manual 0-80℃
Data Storage		750 sets of measurement values storage
Power Supply		100-240VAC power adapter / 6 AAA batteries
Protection Class		IP54
Operating Environment		0-50℃, relative humidity < 90%
Dimensions		15021045mm (lengthwidthheight)
Weight		430g (excluding batteries)

PDG910-PHEC PH/EC 2 in 1 Benchtop

Measurement Principle

PDG910-pHEC pH/Conductivity 2-in-1 Desktop Analyzer is a precision instrument that integrates the measurement of pH, conductivity, salinity, TDS and temperature, with an optional ORP parameter. It features an IP54-rated waterproof housing and mechanical buttons for enhanced interactive perception. A large backlit LCD display provides various prompt messages.



Features

- Can simultaneously measure pH, conductivity, TDS salinity, and temperature.
- Microcomputer processor for high measurement accuracy and good repeatability.
- Optional ORP sensor.
- Standard four-wire conductivity electrode with a wide range for convenient measurement.
- Five-point pH calibration and ORP correction to improve measurement accuracy.
- Compliant with GLP data storage.
- Stores over 750 sets of data.
- Ergonomically designed instrument.

Technical Specifications

pH	Measurement Range	0-14.00pH
	Resolution	0.01pH
	Accuracy	±0.01pH
ORP	Measurement Range	-1999.9-1999.0mV
	Resolution	0.1mV
	Accuracy	±0.05%F.S.
Conductivity	Measurement Range	0.00us/cm-200.0ms/cm
	Resolution	0.01us/cm-0.1ms/cm
	Accuracy	±0.5%F.S.
TDS	Measurement Range	0.00mg-200.0g/L
	Resolution	0.01mg/L-0.1g/L
	Accuracy	±0.5%F.S.
Salinity	Measurement Range	0.0-80.0 g/L
	Resolution	0.1g/L
	Accuracy	±0.5%F.S.
Temperature	Measurement Range	0-80℃
	Resolution	0.1℃
	Accuracy	±0.2℃
Conductivity Calibration		Single-point manual calibration
pH Calibration		1-5 point calibration
ORP Calibration		1-point calibration

Reference Temperature	15.0-25.0℃, default 25.0℃
Temperature Coefficient	0.00-4.00%/℃, default 1.91%/℃
Conductivity Coefficient	Four-wire conductivity electrode k=0.475
TDS Coefficient	0.30-1.00, default 0.65
Temperature Compensation	Manual/Auto -10-120℃
Data Storage	750 sets
Display	Backlit monochrome display
Power Supply	100-240VAC power adapter/6 AAA batteries
Protection Class	IP54
Operating Environment	0-50℃, relative humidity < 90%
Dimensions	15021045mm
Weight	430g (excluding batteries)

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, free 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 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	TYPC-C Interface
Protective Rate	IP66
Data Storage	More than Ten million data
Size &Weight	233.5mm*106mm*52mm，610g

PGZ-800 Portable Turbidimeter



Measurement Principle

The working principle of the PGZ-800 portable turbidity meter is to emit a beam of light to the sample, and then its built-in detector will measure the intensity of the scattered light caused by turbidity in the sample, which is at a 90° angle to the incident light. Since the intensity of the scattered light is proportional to the turbidity concentration in the water sample, it can more accurately measure the turbidity content in the sample.

Features

- Dual light sources, one instrument can easily switch between ISO/EPA methods through software control; and the design complies with EPA 180.1 and ISO 7027 standards;
- Standard five-point long-term turbidity calibration standard solution;
- With IP66 protection level and good waterproof and dustproof performance;
- Support NTU, FTU, EBC multi-unit switching;
- Built-in water quality turbidity curve, users can use it directly. Support 2-5 point calibration, restore factory calibration and other data calibration methods;
- Standard long-life light source;
- Support lithium battery power supply, standard large battery capacity 5200mAh;
- Standard measurement and continuous measurement modes. It has standard single measurement function, and also supports continuous measurement and stores data according to the set storage time interval;
- Built-in clock memory storage system, supports storage of measurement and correction data;
- Built-in large-capacity memory card, which can store and call more than 10 million groups of measurement data for a long time.

Applications

- Purified water plants, water plants, domestic sewage treatment plants;
- Environmental protection departments, industrial water, pharmaceutical industry, epidemic prevention departments, hospitals, etc.

Technical Specifications

Measurement principle	90° diffuse light
Dual light source	ISO/EPA methods can be implemented on the same instrument through software control; designed to meet EPA 180.1 and ISO 7027 standards
Range	0～1000 NTU
Resolution	0.001-0.1NTU
Repeatability	≤2%
Indication error	±5% or ±0.1NTU, whichever is greater
Zero drift	±0.05%F.S
Calibration standard	Supports up to 5-point standard liquid calibration

Unit mode	Factory setting: NTU. Can be switched to FTU, EBC, etc.
Data recording	Long-term storage and call of more than 10 million sets of measurement data
Material	ABS+PC
Storage temperature	-15～60℃；
Ambient humidity	0-90% (non-condensing)
Working temperature	1～45℃
Working power supply	Built-in rechargeable lithium battery, large capacity 5200mAh
Working conditions	The instrument should be placed horizontally on a stable laboratory table, effectively avoiding direct sunlight; there should be enough space around the instrument to facilitate heat dissipation, and there should be no strong vibration source and strong magnetic field interference; there should be no obvious dust and corrosive gas in the surrounding air.
Protection level	IP66
Size & Weight	248.5*87*61.5mm，600g

POIR-3200 Infrared Oil Analyzer





Measurement Principle

The POIR-3200 Infrared Oil Analyzer is mainly used for measuring oil content in surface water, groundwater, and industrial wastewater. It can also be applied to monitor oil in flue gas from catering industry and oil content in solids. It is a professional instrument for measuring oil content in water, gas, and solids.

Basic Principle：In accordance with the national standards GB16488 - 1996 and HJ637 - 2018, tetrachloroethylene is used to extract oil substances in water. Then, anhydrous sodium sulfate is used to isolate impurities and moisture, separate the solution of oil and tetrachloroethylene, and determine the oil content of the total extract.

Features

- Adopts high - throughput optical system and integrated optical path design, with short optical path, large energy, small instrument volume and light weight. It performs light splitting first and then absorption, which meets the requirements of infrared spectrum characteristics, ensuring good stability and high signal - to - noise ratio.
- Uses an electrically modulated light source to reduce the heat generation intensity of the light source, which is beneficial to system heat dissipation, and the service life of the light source can reach more than 5000 hours. At the same time, since there are no mechanical light - cutting moving parts, the instrument structure is simplified and the stability of the instrument is improved.
- Uses a precision stepping motor to control the grating, with wavelength correction function, high accuracy and good repeatability.
- Unique cuvette structure design, suitable for any cuvette from 0.5cm to 5cm.
- Has a continuous spectrum scanning function, which can scan the entire infrared spectrum, clearly distinguish the structure of various oils, thus accurately identifying interferents and checking whether the purity of the extractant meets the measurement needs.
- The instrument can manually locate the wavelength position to achieve accurate measurement of absorbance at the three wave numbers of 2930cm^{-1}, 2960cm^{-1}, and 3030cm^{-1}.
- The oil analyzer analysis software has powerful functions, which can directly read the measurement results of oil in water, oil fume and oil mist in waste gas from fixed pollution sources, and petroleum in soil, without manual conversion. After the measurement is completed, the test report is automatically generated. The report content includes sample measurement data, sample scanning spectrum, standard curve equation and spectrum, sample setting conditions, customer information, etc. Various data and spectra do not need to be saved by computer screenshots, which meets customer requirements.
- Suitable for infrared spectrophotometry using tetrachloroethylene or carbon tetrachloride as extractants.

Conform to Standards

- HJ 637 - 2018 Water Quality - Determination of Petroleum and Animal and Vegetable Oils - Infrared Spectrophotometry;

- HJ 1077 - 2019 Waste Gas from Fixed Pollution Sources - Determination of Oil Fume and Oil Mist - Infrared Spectrophotometry;
- HJ 1051 - 2019 Soil - Determination of Petroleum - Infrared Spectrophotometry.

Applications

- Water quality testing by environmental protection departments, water utilities, testing units, petrochemical enterprises, etc.;
- Teaching, scientific research, and third - party testing companies in schools, laboratories, and testing centers.

Technical Specifications

Baseline stability	Adopts mechanical light - cutting technology to automatically adjust the zero point (eliminating the influence of baseline drift), thereby improving the long - term stability of the signal
Method detection limit	When the sample volume is 1000ml and the extract volume is 25ml, the detection limit is 0.01mg/L
Instrument detection limit	DL < 0.04mg/L (3 times SD of 11 determinations of tetrachloroethylene blank solution)
Accuracy error	≤±2%
Repeatability	RSD ≤ 0.5% (11 determinations of 30 - 60mg/L oil standard sample); RSD ≤ 5% (0.2mg/L water sample)
Basic measurement range	0 - 120mg/L
Minimum detectable concentration	0.001mg/L (water sample concentration)
Maximum measurement concentration	100% oil
Absorbance range	0.0000～3.0000AU (i.e., transmittance 100～1%T)
Scanning wave number range	3400cm^{-1}～2400cm^{-1} (i.e., 2941nm～4167nm)
Measurement wavelength range	3200nm～3600nm
Wave number accuracy and repeatability	±0.5cm^{-1}. Using positioning calibration, oil samples above 30mg/L are automatically calibrated at 2930cm^{-1}, 2960cm^{-1}, and 3030cm^{-1} to eliminate the influence of manual positioning.
Linear correlation coefficient	R > 0.999
Wavelength scanning speed	Full spectrum scanning, 30 seconds/time; non - dispersive infrared method 2 seconds
Extractant selection	Tetrachloroethylene, S - 316 trichlorotrifluoroethane and other non - carbon - chlorine organic solvents as extractants
Correction coefficient accuracy	Using tetrachloroethylene as the reference solution and a 4cm cuvette, measure 0mg/L, 5mg/L, 20mg/L, 50mg/L, and 100mg/L petroleum standard solutions respectively, with an error of ±5%
Host dimension	480mm (length) × 340mm (width) × 160mm (height)
Host weight	12Kg
Temperature	-5～45℃, relative humidity: 20～80%
Host power supply power	Host power supply: 220±10%V, 50Hz, 50W

POUV-200 Ultraviolet Oil Analyzer





Measurement Principle

The POUV-200 ultraviolet oil analyzer is an efficient, environmentally friendly, accurate and fast oil measuring instrument developed in accordance with the requirements of national environmental monitoring technical specifications, combined with China's environmental pollution status and the needs of various environmental monitoring departments.

This instrument uses n-hexane as the extractant instead of carbon tetrachloride, which has been banned in the infrared method. It fully complies with the requirements of the new national standard HJ970-2018 Determination of Petroleum in Water Quality - Ultraviolet Spectrophotometry. The product is easy to operate, with good precision, high sensitivity and stable performance, and can meet various application requirements of customers.

It utilizes the principle that substances with different molecular structures exhibit selective absorption of light for qualitative and quantitative analysis of substances. By analyzing the absorption spectrum, the structure and chemical composition of the substance can be determined

Basic Principle：Under the condition of pH ≤ 2, the oil substances in the sample are extracted by n-hexane. The extract is dehydrated with anhydrous sodium sulfate, and then adsorbed by magnesium silicate to remove polar substances such as animal and vegetable oils. The absorbance is measured in the ultraviolet region. The petroleum content conforms to the Lambert-Beer law with the absorbance value, so as to quantitatively analyze the petroleum content in water.

Features

- Fully complies with the new environmental protection standards, uses ultraviolet light for detection, the instrument automatically measures the absorbance, then automatically calculates the final concentration, with simple operation and accurate results;
- The extractant is n-hexane, which has much lower impact on humans and the environment than carbon tetrachloride used in infrared oil analyzers;
- Adopts a 10.1-inch high-resolution true-color touch screen, and the user-friendly and simple menu design makes operation more time-saving. A single interface includes detailed information such as detection time, detection items, absorbance, transmittance, concentration value, wavelength value, and curve;
- Measurement items can be selected as automatic or semi-automatic measurement;
- The instrument has a scanning function, which can evaluate the purity of blanks;
- Built-in multiple preset standard curves and supports custom curves;
- Large capacity can store 5 million groups of data;

- Built-in thermal printer realizes the integration of detection and data printing, and can print current and historical data;
- The instrument has a self-inspection function, which can calibrate the instrument system;
- Equipped with a USB interface, which can realize data transmission function.

Applications

- Determination of petroleum in surface water, groundwater and seawater.
- Environmental monitoring systems, petrochemical industry, colleges and universities, research institutes, sewage treatment plants, water conservancy and hydrology, water supply plants, petrochemicals, papermaking, pharmaceuticals, steel, agricultural environment monitoring and other industries.

Technical Specifications

Determination indicators	Petroleum, animal and vegetable oils, and total oil
Display method	10.1-inch touch screen with Chinese and personalized icon operation interface
Wavelength range	200-400nm
Detection limit	0.001mg/L
Determination range	0.001～1000mg/L
Measurement range	Multi-range selection
Extractant	n-hexane
Determination time	20-30 minutes
Photometric stability	≤0.001A/10min
Repeatability	±3%
Measurement error	≤±5%
Temperature indication error	±5%
Temperature field uniformity	±0.5
Ambient temperature	5～40℃
Ambient humidity	Relative humidity <85% (no condensation)
Extraction method	Manual extraction
Curve parameters	Built-in standard curve
Printing method	Built-in thermal printing

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%
Limit of Quantitation	≤0.02mg/L
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，RJ45
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,RJ45
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%
Limit of Quantitation	⩽15mg/L
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,RJ45
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%
Limit of Quantitation	≤0.15mg/L
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%
Limit of Quantitation	⩽0.02mg/L
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 NitrogenWaterQualityOnlineAutomaticMonitor-ResorcinolMethod

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，RJ45
Environmental conditions	Temperature adjustable room, recommended temperature +5-40℃ Humidity ≤85% (no condensation)
Size	302*271*462mm

PCM200-TN-UV TotalNitrogenWaterQualityOnlineAutomaticMonitorUltravioletSpectrophotometry

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%
Limit of Quantitation	⩽0.3mg/L
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 free 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，RJ45
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 free 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，RJ45
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 free 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 free 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、RJ45
Environmental conditions	Indoor(temperature adjustable), recommended temperature: +5-40 ℃ ; humidity ≤85% (no condensation)
Dimensions	302*271*462mm（L*W*H）

PCM200-CODmn-BD Permanganate Index Water Quality Online Automatic Analyzer

Principle

Acidic potassium permanganate oxidation titration method. A measured amount of potassium permanganate solution and sulfuric acid solution is added to the sample, mixed, and digested. The potassium permanganate oxidizes organic pollutants in the sample. Then, a measured amount of sodium oxalate solution is added to reduce the remaining potassium permanganate. Excess sodium oxalate is titrated back with potassium permanganate solution, and the titration endpoint is determined by photometric changes. Finally, the instrument automatically calculates the permanganate index value.



Features

- Adopts a ten-way valve with a sapphire valve core, featuring high wear resistance, strong resistance to acids, alkalis, and organic solvents, long service life, and high stability;
- Equipped with waste liquid separation function, separating high-concentration reaction waste liquid from low-concentration cleaning waste liquid for discharge;
- Features dynamic dilution function, automatically adjusting the dilution factor based on the range set on-site;
- Includes built-in quality control functions such as standard addition recovery, blank testing, standard sample verification, zero-point verification, span verification, and parallel sample testing, with options for automatic, manual, or remote activation of quality control functions;
- Equipped with automatic fault diagnosis and abnormal information upload and recording functions, including component failure, over-range alarms, exceedance alarms, and reagent shortage alarms;
- Features overheat protection: if the heating temperature is too high, the heater automatically shuts off;
- Upon abnormal reset or power restoration after a power outage, the instrument automatically discharges free reactants and returns to its initial working state. It also has a power-on alarm function, generating an alarm message when powered on after a power outage;
- Includes analysis process logs, measurement data recording, and alarm information storage, with data recorded hourly, capable of storing over 5 years of data, and supports quick data export via USB drive;
- Features three-level management permissions.

Application

- Online monitoring of permanganate index in drinking water and surface water.

Technical Specification

Range	0-50 mg/L (customizable)
Indication Error	≤±10% or ≤±0.2 mg/L, whichever is greater
Detection Limit	≤0.5 mg/L
Repeatability	≤5%
Zero Drift	≤±5%
Range Drift	≤±5%
Resolution	0.001 mg/L (decimal places adjustable between 2-3 digits)
Display	7-inch touchscreen
Measurement Mode	Continuous mode, periodic mode (adjustable from 1 hour to 30 days), fixed-point mode, controlled mode, manual mode optional
Calibration Mode	Manual and automatic calibration modes
Maintenance Cycle	Generally once a month
Power Supply	220VAC ±10%, 50Hz ±10%
Output	4-20mA output
Communication	MODBUS RS-232, RS-485, RJ45
Environmental Conditions	Indoor with adjustable temperature, recommended temperature +5-40° C; humidity ≤85% (non-condensing)
Dimensions	302*271*462 mm (L*W*H)

PCM300-TOC Total Organic Carbon Online Water Quality Automatic Analyzer

Measurement Principle



Combustion Oxidation-Nondispersive Infrared Absorption Method. Inorganic carbon-containing substances in the sample are subjected to acidification and aeration treatment, then enter a carbon dioxide-free airflow for high-temperature combustion. An infrared detector is used to measure the carbon dioxide content. Finally, the total organic carbon is calculated based on the carbon content correspondence between carbon dioxide and total organic carbon.

Features

- Adopts a multi-port valve with a ceramic spool, featuring a high wear resistance coefficient, resistance to strong acids and organic solvents, long service life and high stability.
- The condenser uses a spiral glass tube, delivering better cooling effect and higher energy utilization efficiency for incoming high-temperature airflow.
- Constructed with high-efficiency thermal insulation material with a low thermal conductivity coefficient, effectively isolating the temperature difference inside and outside the condenser, reducing energy transfer and enhancing condensation performance.
- Features a well-designed combination of a high-precision thermistor and a low-power condensation chip. Combined with an optimized PID algorithm, it enables highly precise temperature control of the condenser.
- Equipped with a dynamic dilution function, automatically adjusting the dilution ratio based on the on-site set measuring range.
- Supports automatic fault diagnosis, abnormal information uploading and recording, including component failures, over-range alarms, exceedance alarms and gas shortage alarms.
- Automatically discharges free reactants inside the instrument and restores to the initial working state upon abnormal reset or power recovery after a power outage.
- Has a power-on alarm function, generating alarm information when the instrument is re-powered after a power outage.
- Stores analytical process logs, measurement data and alarm information, with data calculated and recorded hourly for over 3 years. Data can be quickly exported via USB flash drive.
- A 40L nitrogen cylinder lasts approximately 15 days in continuous measurement mode, or about 60 days in gas-saving mode (1-hour measurement interval).
- Lower measurement cost compared with COD (only dilute hydrochloric acid and carrier gas are used), no waste liquid discharge, completely eliminating secondary pollution from waste liquid.
- Features three-level management authority.

Application

- Online monitoring of total organic carbon in surface water, domestic sewage and industrial wastewater.

Technical Specification

Range	0-50 mg/L (customizable)
Measuring Range	0-10000 mg/L
Indication Error	5-100 mg/L: ≤±10% at 20% of full scale; ≤±8% at 50% of full scale; ≤±5% at 80% of full scale; >100 mg/L: ≤±5%
Quantification Limit	≤5 mg/L (Indication error: ±30%)
Repeatability	≤5%
Low-concentration Drift	≤±1 mg/L (5-100 mg/L range)
High-concentration Drift	≤5%
Resolution	0.01 mg/L
Display	10-inch touch screen
Measurement Mode	Continuous, periodic, fixed-point, controlled, manual
Measurement Cycle	<15 minutes
Calibration Mode	Manual calibration, automatic calibration
Maintenance Cycle	Once per month (general)
Power Supply	220V±10%, 50Hz±1Hz
Power Consumption	Average: 300W; Peak: 500W
Output	Two 4-20mA outputs, four relay outputs, one controlled power supply (≤500W)
Input	Two switch inputs (triggerable for instrument measurement)
Communication	RS485, RS232, RJ45 (one each)
Ambient Conditions	Temperature-controlled indoor space, recommended +5~40℃; Humidity ≤85% (non-condensing)
Dimensions & Weight	600mm×442mm×1575mm; 100kg

PCM300-EC Coliform group online monitor

Features



- Enzyme substrate fluorescence detection technology can achieve multi-purpose use of one machine, and the test indicators "coliform group", "fecal coliform group" and "Escherichia coli" can be switched freely.
- Detection time: 4~16 hours, 2 hours shorter than the national standard.
- The test value is accurate, and the relative error of the concentration index is ≤10%.
- According to the actual water sample characteristics, quantitative quality control bacteria are used regularly (according to the national standard method) for on-site quality control to ensure the reliability of the results.
- The fluorescence method is used, and there is no special requirement for the turbidity of the water sample.
- The use of non-disposable reagents is low cost and supports a 15-day maintenance-free cycle.
- The function of "automatic liquid preparation of solid powder in reagent bags" of reagent A can be customized in remote areas.
- It has the function of automatic water sample replacement, reducing the influence of the last water sample concentration, and the last concentration free is less than 0.001%.
- The system pipeline is sealed before and after the test, and the closed detection system is used to completely isolate the outside world and eliminate the influence of the environment on the test results.

Application

- Surface water, groundwater, water sources, medical emissions, pharmaceutical biological emissions, livestock and poultry emissions, and urban sewage.

Technical Specification

Range	10^2 cfu/L-10^12 cfu/L（customizable 10cfu/L-10^12 cfu/L）
Detection limit	1 个/10ml(customizable 1/100ml)
Reaction time	4-16 hours
Sampling frequency	≥4 hours, can be set according to actual conditions.
Sampling volume	10ml
Accuracy	≤±10%
Cultivation temperature and monitoring indicators	44 ℃ monitoring index (heat-resistant (fecal) coliform bacteria)， 37 ℃ monitoring index (coliform bacteria and Escherichia coli)
Zero point calibration	The instrument is automatically carried out, once every maintenance cycle
Pipe cleaning	Before and after each measurement
Pipe disinfection	Before and after each measurement
Alarm signal	Temperature failure, instrument failure, etc.
Communication port	RS-232;RS-485
Power supply	220VAC50HZ；200W
Power consumption	Moisture-proof, dust-proof, temperature: 5-33℃
Negative control	≥1 day, can be set according to actual situation
Size	600*450*1550mm

PAS-305M Water quality automatic sampler

Introduction



The automatic water quality sampler is suitable for shore-side automatic water quality monitoring stations. The sampler can be integrated with the water station system, accept central control, and realize external control sampling, synchronous sampling, and over-standard sampling. It has the characteristics of small size, automatic refrigeration, and easy installation. It is an important part of the shore station.

Features

- Various sampling methods: timed sampling, time proportional sampling, synchronous sampling, external control sampling, over-standard sampling (after detecting the over-standard signal, water is collected from the grit chamber for sampling), remote control sampling;
- Bottle division method: single sampling, mixed sampling;
- Automatic rinsing: the pipeline is automatically rinsed with the original water sample before sampling;
- Automatic emptying: the pipeline is automatically emptied after sampling;
- Low temperature refrigeration: electronic temperature control, accuracy (4±2)℃;
- Electronic access control: open the electric lock after the password verification;
- Remote reading: remote reading can be realized and working parameters can be set.

Technical Specification

Sampling bottle	Specifications: 500ml* (6 bottles, 8 bottles or 12 bottles)
Sampling bottle material	Glass or polyethylene (optional)
Sampling volume error	±7%
Proportional sampling volume error	±8%
Temperature control accuracy	±2℃
Sampling vertical height	≥6.5M
Horizontal sampling distance	≥65M
Dimensions (length × width × height)	400mm*400mm*600mm

PAS-305M4 Water quality automatic sampler (self-sealing type)



Introduction

The sampler is mainly used in the automatic monitoring system of surface water quality in river sections and drinking water sources. It can be controlled by an on-site industrial computer and integrated with various online monitors to coordinate work. When there is an abnormal detection or special sample retention requirement, it can automatically retain samples, automatically empty water samples, and automatically seal the bottle mouth. It is an essential part of the automatic monitoring system of surface water quality.

Features

- It has single sampling and mixed sampling functions;
- It has automatic rinsing function for sample bottles;
- It has various sampling methods: timed sampling, time proportional sampling, external control sampling, over-standard sampling, remote sampling, flow proportional sampling, liquid level proportional sampling and immediate sampling;
- It has sample failure alarm function;
- It has access control system and door opening and closing records;
- It has the function of automatically emptying the sampling bottle after sampling, and has the functions of pipeline emptying and pipeline rinsing;
- The sample bottle has a sealing function;
- The sample bottle is made of glass, with a capacity of ≥500mL;
- It has the functions of saving sampling records, fault information and sample storage temperature exceeding the standard alarm information;
- It has the function of water sample refrigeration, and the temperature is (4±2)℃.

Technical Specification

Sample bottle	500mL*12 bottle
Sample bottle material	Glass or polyethylene (optional)
Single sample volume	1-500mL adjustable
Time proportional sample interval	1-9999min adjustable

Sampling volume error	±7%
Proportional sampling volume error	±8%
Temperature control accuracy	4±2℃
Horizontal sampling distance	≥80M
Sampling vertical height	≥8M
Free volume of sample bottle after emptying	≤2mL
Dimensions (length × width × height)	400*350*575mm
Pipeline air tightness	≤-0.085MPa
Mean time between failures (MTBF)	≥1440h/time
Working temperature	5℃-40℃
Working humidity	≤85%RH
Insulation resistance	>20MΩ
Working voltage	AC220V±10%,50Hz±1Hz

PAS-305A Water quality automatic sampler



Introduction

This water quality automatic sampler is widely used in pollution sources, sewage treatment plant imports and exports, and is used online with online monitors for COD, ammonia nitrogen, heavy metals, etc. The original flow tracking sampling mode can automatically adjust the sampling flow according to the instantaneous flow, realize continuous sampling, and ensure that the collected water samples are more representative. The original mixed sample function can provide uninterrupted mixed water samples to the online monitor, which can effectively avoid the sampling blind area during the measurement cycle. The online monitor intermittently measures the surface with a point. This sampler is an ideal supporting equipment for online monitoring systems and overall solutions for total emission reduction.

Features

- Sampling function: can realize various sampling triggering modes such as timed sampling, time proportional, flow proportional, flow tracking, external control sampling and serial port control;
- Sample retention function: can realize over-standard sample retention, synchronous sample retention, direct sample retention and serial port control sample retention;
- Sample supply function: can provide uninterrupted mixed water samples to multiple online monitors such as COD, ammonia nitrogen and heavy metals at the same time;
- Record: has sample retention record, door opening and closing record, power failure record and alarm record;
- Power failure protection: automatic protection when power is off, automatic recovery when power is on;
- Remote control: can realize remote status query, parameter setting, record upload, remote control sample retention, etc.;
- Digital temperature control: precise digital temperature control of the refrigerator, equipped with a heat equalization system, uniform and accurate temperature;
- Automatic rinsing: before each sampling, rinse the pipeline with the water sample to be tested to ensure the representativeness of the sample;
- Automatic emptying of the mixing barrel: the mixing barrel has a fast and automatic emptying function;
- External pump control: Directly control the external pump to extend the sampling distance.

Technical Specification

Sampling bottle	Specification: 1000ml×25 bottles
Single sampling volume	(5-1000ml

Sampling interval	2-9999min
Sampling record	5000 records
Door opening and closing record	1000 records
Power failure record	1000 records
Sampling volume error	±5%
Proportional sampling volume error	±10%
System clock time control error	Δ1≤0.1%　　Δ12≤30s
Temperature control accuracy	±1.5℃
Sampling vertical height	≥8m
Horizontal sampling distance	≥80m
Pipeline system air tightness	≤-0.085MPa
Mean time between failures (MTBF)	≥1440 h/次
Insulation impedance	＞20 MΩ
Communication interface	RS-232/RS-485
Analog interface	4mA -20mA
Digital Input Interface	Switching Value
Optional	Chemical Dosing System

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℃

EFM20 Electromagnetic Flowmeter

Principle



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

Features

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

Application

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

Technical Specification

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

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.	1m≤range＜2.5m: (0-60)℃; 2.5m≤range≤6m: (0-0)℃; range＞6m: (-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	20MΩ/250VDC
Protection class	IP68
Load resistance	(U-9V)/0.02A ,U :Power voltage
Material	316L
Size	Φ26.5*114.6

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

ULM10 Integrated Ultrasonic Level Meter

Introduction



The ultrasonic level meter is a non-contact, high-reliability, high-cost-performance, and easy-to-install-and-maintain level measurement instrument. It can meet most level measurement requirements without contacting the medium.

Application

- Petroleum, chemical industry, tap water, sewage treatment, water conservancy and hydrology, iron and steel, coal mine, electric power, transportation, food processing and other industries.

Technical Specification

Measurement Range	±0.5% FS
Measurement Accuracy	0.4-0.8m depending on the range
Resolution	Transmitter: ABS;Sensor: POM, PTFE or PVDF Optical
Display	AC:220VAC+15%　50Hz;DC:24VDC
Analog Output	4-20mA
Relay Output	MODBUS RS485(Optional)
Power Supply	-15 to 60℃
Ambient Temperature	-10 to 60℃
Protection Class	Sensor : IP68/NEMA6P;Transmitter: IP65/ NEMA4X

ULM20 Integrated Ultrasonic Level Meter



Introduction

The ULM20 ultrasonic level meter is an integrated measuring instrument, which is widely applied to continuous non-contact level measurement of various media including liquids, slurries, sludge and bulk solids.

Technical Specification

Measurement Range	±0.5% FS
Measuring Range	0~5M/0~10M
Measuring Accuracy	±0.5%FS (±0.2%FS optional)
Resolution	1 mm or 0.1%FS (whichever is greater)
Temperature Compensation	Automatic temperature compensation with temperature calibration function
Display	2-inch monochrome LCD display, 128×64 resolution
Operating Ambient Temperature	0℃ ~ 50℃
Storage Ambient Temperature	-20℃ ~ 70℃
Relative Humidity	10% ~ 85% RH (non-condensing)
Language	English
Current Output	4 ~ 20 mA

ULM60F Ultrasonic Flume Flowmeter

Measuring principle

Ultrasonic Flume flowmeter is used in conjunction with water measuring weir to measure the flow of water in the Flume. Mainly used for measuring sewage plants, enterprises and institutions of the sewage outfall, the flow of urban sewers and agricultural irrigation channels and so on. Because our meter adopts ultrasonic waves to pass through the air and measure in a non-contact method. Therefore, in the case of viscous dirt and corrosive liquid, it has higher reliability than other forms of meters.



Technical Specification

Measuring Range	0.1L/sec-99999.99m3/hour
Accumulated Flow	Maximum: 4290000000.00m3
Level Maximum Range	3m
Level Measuring Accuracy	0.5%
Resolution	3mm or 0.1% (whichever is greater)
Display	English LCD display
Flow Measuring Accuracy	Standard weir is 1-5% (weir and channel in accordance with the requirements of the national standard)
Analog Output	Non-standard weir is 10-30%.
Relay Output	4-wire 4-20mA/750Ω load
Power Supply	(optional item) 2 groups DC 24V/ 5A or AC 220V/ 8A
Operating Ambient Temperature	Display meter -20-+60℃, probe -20-+80℃
Operating Ambient Pressure	standard atmospheric pressure
Operating Ambient Humidity	≤90%RH, non-condensing
Process Temperature	-20-80℃
Process Pressure	Standard atmospheric pressure
Communication	(optional) 485, 232 communication, MODBUS protocol
Protection class	IP65 for display instruments, IP68 for probes
Probe cable	10 meters as standard, maximum 50 meters
Probe mounting size	M78 x 2mm thread + matching nut
Probe material	ABS as standard, in corrosive environments to use PTFE material.

ULM60I Ultrasonic Sludge Interface Meter

Measuring principle

Ultrasonic mud level meter and ultrasonic depth sounder are contact-type, highly reliable, cost-effective, easy to install and maintain mud level measuring instruments. They detect underwater mud level through liquid transmission.



Technical Specification

Range	5m, 10m, 15m
Measurement accuracy	2%
Resolution	5mm OR 0.5%（the bigger one）
Display	English LCD display.
Analog output	4～20mA/750Ω load
Relay output	(Optional) Single channel has 2 groups of DC 30V/5A or AC 250V/8A, state programmable
Power supply	Standard 24VDC 120mA Optional 220V AC+15% 50Hz Customized 12VDC or battery power supply
Ambient temperature	Display instrument -20～+60℃, Probe -20～+80℃
Protection level	Display instrument IP65, probe IP68
Probe cable	Up to 50 meters, standard 10 meters

Pro-411R Low-Power Data Acquisition Terminal（RTU）

Measurement Principle



Low-Power Data Acquisition Terminal (RTU) Features a low-power design with sleep mode consumption below 50uA @ DC12V, making it ideal for battery-powered or solar-powered applications. Significantly reduces battery capacity requirements and lowers costs. Supports GPRS, 4G full-network connectivity, and NB-IoT data transmission options for collecting various instrument output signals and enabling remote transmission.

Features

- Ultra-low power consumption design: Sleep mode power consumption <50μA @ DC12V;
- Multiple data transmission options: Supports GPRS, Full-network connectivity, NB-IoT;
- Alarm function: Immediately reports alerts when monitored data exceeds limits;
- Storage function: Local cyclic storage with overflow overwrite, non-volatile memory retains data during power loss;
- Remote management: Supports remote parameter configuration and firmware upgrades;
- Operating modes: Supports real-time online and scheduled wake-up modes;
- Supports data communication with multiple centers.

Technical Specifications

Hardware Interface	1x RS485 port, micro USB debugging interface, 1x digital input, 1x relay output
Debug Serial Port	RS485+Micro USB
Positioning Function	GPS/BeiDou Dual-Mode Positioning
Enclosure Specifications	200mm*175mm*80mm
Protection Rating	IP68
Communication	Supports NB-IoT, GPRS, and 4G full network connectivity options
Storage	16M
Settings	Serial port, remote
Supply Voltage	DC10V-DC17V
Sleep Current	<50uA @ DC12V

Product Center

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