WOHUAN TECHNOLOGY

Water Quality Analyzers (Wastewater Series & Industrial Analysis Instruments)

INSTRUMENTATION
ENVIRONMENTAL
MONITORING

Wuxi Wohuan Instrument Technology Co., Ltd.

WOHUAN TECHNOLOGY

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WXWH

Wuxi Wohuan Instrument Technology Co., Ltd. is a high-tech enterprise specializing in the development, production, and sales of various instruments and meters. The company focuses on big data platforms, energy storage microgrid management, online environmental monitoring, and industrial process instrumentation.

With a commitment to excellence and customer service, Wohuan Technology provides safe, eco-friendly products and automation solutions. The company excels in IoT chip design, sensor innovation, big data processing, cloud computing, and AI algorithms, offering intelligent monitoring and management solutions for urban energy, water environments, sewage systems, and river maintenance.

Main products include: trace moisture analyzers, concentration analyzers, pressure transmitters, level transmitters, temperature transmitters, radar level meters, gas detectors, pH meters, oxidation-reduction potential (ORP) meters, conductivity meters, dissolved oxygen (DO) meters, residual chlorine meters, turbidity meters, sludge concentration meters, sludge interface meters, water salinity meters, COD analyzers, ammonia nitrogen analyzers, BOD analyzers, total phosphorus analyzers, total nitrogen analyzers, five-parameter analyzers, spectrophotometers, ultrasonic level meters, various flow meters, flow totalizers, wireless data collectors, RF admittance level controllers, gas analyzers, VOC, TVOC, and system-compatible PLCs, DCS, etc.

These products are widely used in environmental protection, sewage treatment, heating, water supply, petroleum, chemical, power, machinery, metallurgy, pharmaceutical, food, automotive, textile, and light industries. The company is recognized for its reliable products and excellent after-sales service.

Corporate Culture:

Mission: To create a better life for customers, provide a growth platform for employees, and deliver optimal benefits to society.

Spirit: Strive for excellence and continuously improve.

Safety Philosophy: Pursue safe development and ongoing improvement.

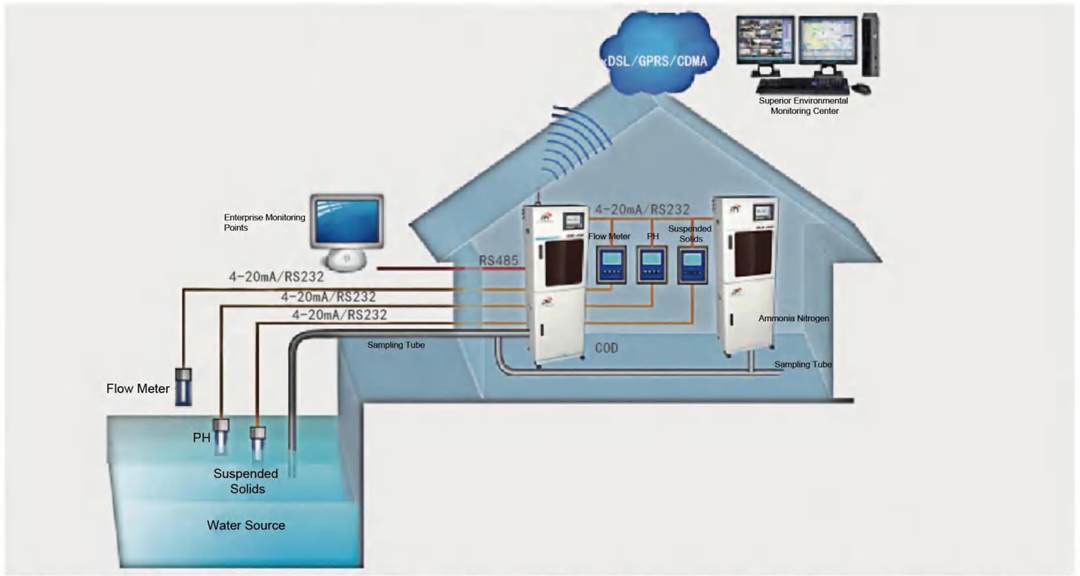
Service Philosophy: Communicate with care and serve with love.

Talent Philosophy: Select and appoint the capable, ensuring everyone reaches their f ull potential.

Learning Philosophy: Study diligently, think wisely, and apply knowledge effectively.

Contents

WH-8200 Wastewater Pollution Online Monitoring



Monitoring Indicators: COD, TOC, Ammonia Nitrogen, Total Phosphorus, Total Nitrogen, Heavy Metals (Hexavalent Chromium/Total Chromium, Total Copper, Total Manganese, Total Zinc, Lead, Cadmium, Copper, Zinc, Arsenic, Mercury), etc.

Application: Enterprise wastewater discharge outlets, Urban wastewater treatment plants, City pipeline networks and sewage pumping stations

System Diagram

- The system consists of four parts: Environmental Protection Bureau Monitoring Center, Communication Network, Monitoring Equipment, and Control Equipment;
- Monitoring Center: Composed of computers, IC card readers, GPRS data transmission modules, and monitoring management system software;
- Communication Network: Supports various communication methods such as PSDN, ADSL, CDMA, and GPRS;
- Monitoring Equipment: Wastewater discharge monitoring and control terminal;
- Control Equipment: Electromagnetic flow meter, COD online analyzer, electric valve.

Main Functions

Real-Time Data Monitoring | Multiple Query Methods | Exceedance Alarms | Remote Control | System Management

WH-8210 Outdoor Compact Water Quality Automatic Monitoring System

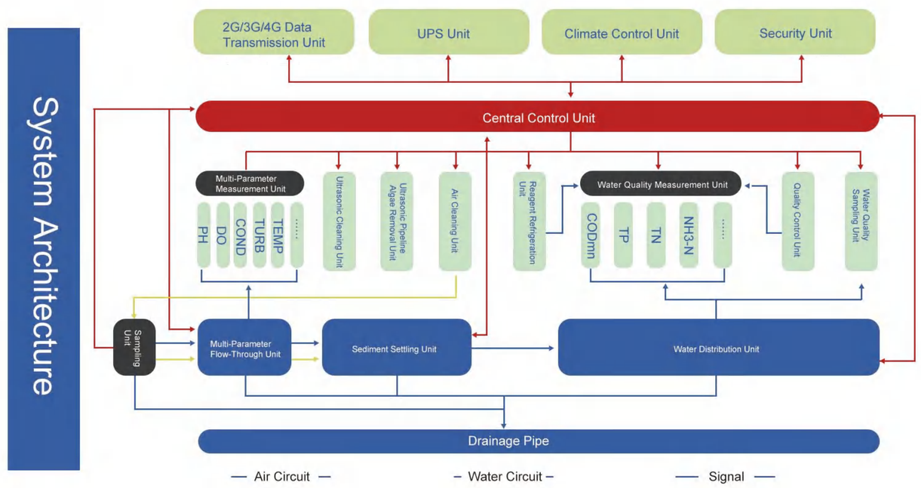
System Overview

The Environlyzer Station outdoor compact water quality automatic monitoring system is centered around online monitoring instruments and adopts an intelligent design philosophy. It integrates automatic control, wireless communication, and network engineering technologies to enable real-time, continuous multi-parameter monitoring and remote control of water quality. This system helps promptly understand the water quality conditions within a jurisdiction, provides early warning of pollution incidents, and offers reliable information support for environmental management departments.

System Features

- Customizable Monitoring Factors: Water quality five parameters, CODcr, CODmn, ammonia nitrogen, total phosphorus, total nitrogen, heavy metals, inorganic anions, etc.
- Self-Developed Visual Central Control System: Based on .NET Framework architecture, highly scalable and user-friendly;
- Central Control Integration: Complies with national standards for data transmission and remote control protocols, enabling real-time remote monitoring and management of water stations;
- Integrated Quality Control System: Allows arbitrary proportion mixing of standard samples for concentration verification and spike recovery rate testing;
- Innovative Ultrasonic Pipeline Cleaning and Algae Removal System: Ensures long-term stable operation even in sites without cleaning water. Optional high-pressure water and algae removal modules for air-water mixed cleaning when cleaning water is available;
- Equipped with Air Compressor: Performs air backflushing on the filter elements of the water distribution unit, extending maintenance intervals;
- Multi-Parameter Flow-Through Unit with Integrated Cleaning Device: Cleans probes before and after each measurement, improving accuracy and extending probe maintenance intervals;
- Independent Reagent Refrigerator: Ensures reagents do not degrade due to high temperatures;
- Backup Power System: Guarantees operation time during power outages, meeting national station requirements;
- Climate Adaptation and Security Monitoring Systems: Suitable for various extreme climates;
- Switches, lightning protection devices, measurement and control system modules, and system cabinets are all equipped with top-tier brand components;
- The standard nine-parameter water station occupies approximately 0.8m².

System Architecture



WH-8211 Solar-Powered Floating Automatic Monitoring Station

Product Overview

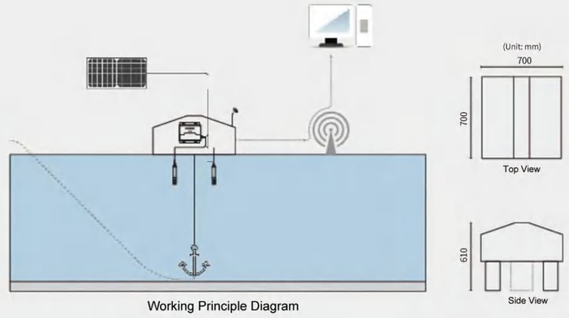
The WH-8211 Solar-Powered Floating Automatic Monitoring Station is an economical buoy-based water quality monitoring data collection platform. It integrates data transmission technology, cloud computing technology, solar power supply technology, and modular measurement technology into an intelligent online monitoring system. This system features automatic continuous online monitoring, automatic cleaning, solar power supply, wireless transmission, and unmanned operation.

Technical Features

- Integrated Design: Combines water quality monitoring, wireless transmission, and solar power supply into one unit for ease of use;
- Cloud Operation: Supports Modbus RTU standard protocol; provides cloud-based configuration, operation, display, and alarm functions;
- Ultra-Low Power Consumption: Solar-powered, capable of continuous operation even in rainy weather;
- Operating Environment: Functions reliably in temperatures ranging from -20°C to 55°C. Customizable for different regions;
- Easy Installation: No specific site required, can be freely deployed, quick to install, and saves labor;
- Automatic Cleaning: Program-controlled automatic cleaning ensures the sensor interface remains clean.

Application Areas

- Surface Water, Lakes, Reservoirs, Water Source Areas



Working Principle Diagram

Technical Parameters

Specification	Technical Specification Parameters
Monitoring Parameters	Water quality five parameters; multi-parameters
Protection Facilities	Navigation light; GPS (optional)
Power Supply	48Ah,12VDC
Solar Panel	50W,12VDC
Data Transmission	RS485 (Modbus RTU standard protocol), customizable protocol output upon request
Buoy Dimensions	700*700*610MM
Fixing Method	Single-point or two-point anchor fixation
Parameter Options	pH, Conductivity, DO, Turbidity, Temp, COD, NH3-N, ORP, Chlorophyll, Blue-Green Algae, Fluoride, Chloride, Transparency, Nitrate, etc.

CODcr 2101 Automatic Analyzer

Basic Principle

The analyzer heats a mixture of water sample, potassium dichromate digestion solution, silver sulfate solution (added as a catalyst to effectively oxidize straight-chain fatty compounds), and mercuric sulfate solution to 165℃. The dichromate ions oxidize the organic matter in the solution, causing a color change. The analyzer detects this color change and converts it into a COD value. The amount of dichromate ions consumed corresponds to the amount of oxidizable organic matter.

Reducing inorganic substances in water samples, such as nitrites, sulfides, and ferrous ions, react with potassium dichromate, affecting the measurement results. The amount of potassium dichromate consumed by these substances is included in the measurement, leading to higher results. The interference from chloride ions in water samples can be eliminated by adding mercuric sulfate, as chloride ions form a very stable compound, mercuric chloride, with mercury ions.

Instrument Features

- Auto sample verification.
- Data retention during outages.
- Tagging for test data.
- Serial/network data output.
- Separate waste collection.
- Auto-range switching.
- 5+ years data storage.
- Auto recovery post-outage.
- Full data/log management.
- Flexible, low-maintenance valves.
- Digital interface for remote control.

Technical Specifications

Specification	Technical Specification Parameters	
Method Basis	Dichromate Spectrophotometry	
Execution Standards	HJ 377-2019	
Measurement Range	(0-5000)mg/L	
Quantitative Lower Limit	≤15 mg/L (indication error ±30%)	
Low Concentration Drift	±5mg/L	
High Concentration Drift	≤5%	
Indication Error Basic Range 0-200 mg/L	Standard Solution 40.0 mg/L	±10.0%
	Standard Solution 100.0 mg/L	±8.0%
	Standard Solution 160.0 mg/L	±5.0%
Memory Effect	Standard Solution 40.0 mg/L	±10.0%
	Standard Solution 160.0 mg/L	±8.0%
Actual Water Sample Comparison Test	Water Sample <50.0 mg/L	≤5mg/L
	Water Sample ≥50.0 mg/L	≤10.0%
Extended Range Performance	Indication Error: ±3%; Repeatability: ≤5%; High Concentration Drift: ≤3%	
Repeatability	≤±5%	
Chloride Ion Influence Test	±10%	
Measurement Cycle	Min. 20 minutes; adjustable digestion time from 5 to 120 minutes based on actual water sample	
Sampling Cycle	Adjustable interval (10-9999 minutes) and whole-point measurement mode	
Calibration Cycle	Adjustable interval from 1 to 99 days at any time	
Maintenance Cycle	Typically once a month, about 60 minutes each time	
Output	RS-232, RS-485, 4-20mA (optional)	
Environmental Requirements	Temp-controlled indoor environment, recommended temp. +5~28°C; humidity ≤90% (non-condensing)	
Power Supply	AC220±10%V，50±10%Hz，5A	

Ammonia Nitrogen NH_3-N 2111 Automatic Analyzer

Basic Principle

The water sample is mixed with a masking agent, and the ammonia nitrogen, which exists in the form of free ammonia or ammonium ions, reacts with the salicylic acid color reagent in an alkaline environment and in the presence of a sensitizer to form a colored complex. The analyzer detects this color change and converts it into an ammonia nitrogen value. The amount of colored complex formed corresponds to the amount of ammonia nitrogen.

Instrument Features

- Auto sample verification.
- Data retention during outages.
- Tagging for test data.
- Serial/network data output.
- Separate waste collection.
- Auto-range switching.
- 5+ years data storage.
- Auto recovery post-outage.
- Full data/log management.
- Flexible, low-maintenance valves.
- Digital interface for remote control.

Technical Specifications

Specification	Technical Specification Parameters	
Method Basis	Salicylic Acid Spectrophotometry	
Execution Standards	HJ 101-2019	
Measurement Range	(0-500) mg/L (expandable)	
Quantitative Lower Limit	≤0.15mg/L(indication error ±30%)	
Low Concentration Drift	≤0.02 mg/L	
High Concentration Drift	≤1.0%	
Indication Error	Standard Solution 2.0 mg/L	± 8.0%
	Standard Solution 5.0 mg/L	± 5.0%
	Standard Solution 8.0 mg/L	± 3.0%
Memory Effect	Standard Solution 2.0 mg/L	± 0.3mg/L
	Standard Solution 8.0 mg/L	± 0.2mg/L
Actual Water Sample Comparison Test	Water Sample <2.0 mg/L	0.2mg/L
	Water Sample >2.0 mg/L	10.0%
Extended Range Performance	Indication Error: ±3%; Repeatability: ≤5%; High Concentration Drift: ≤3%	
Repeatability	≤2%	
pH Interference Test	+6.0%	
Measurement Cycle	The minimum measurement cycle is 20 minutes. Depending on the on-site environment, the color development time can be adjusted between 5~120 minutes.	
Sampling Cycle	Adjustable interval (10-9999 minutes) and whole-point measurement mode	
Calibration Cycle	Adjustable interval from 1 to 99 days at any time	
Minimum Maintenance Cycle	>720 hours per session	
Output	RS-232，RS-485，4-20mA(optional)	
Environmental Requirements	Temp-controlled indoor environment, recommended temp. +5~28°C; humidity ≤90% (non-condensing)	
Power Supply	AC220±10%V，50±10%Hz，5A	

Total Phosphorus TP 2121 Automatic Analyzer

Basic Principle

The mixture of water sample, catalyst solution, and strong oxidant digestion solution is heated to 115°C. Polyphosphates and other phosphorus-containing compounds in the water sample are digested and oxidized by the strong oxidant under high temperature, high pressure, and acidic conditions to produce phosphate ions. In the presence of a catalyst, the phosphate ions react in a strong acid solution containing molybdate to form a colored complex. The analyzer detects this color change and converts it into a total phosphorus value. The amount of colored complex formed corresponds to the amount of total phosphorus.

Instrument Features

- Auto sample verification.
- Data retention during outages.
- Tagging for test data.
- Serial/network data output.
- Separate waste collection.
- Auto-range switching.
- 5+ years data storage.
- Auto recovery post-outage.
- Full data/log management.
- Flexible, low-maintenance valves.
- Digital interface for remote control.

Technical Specifications

Specification	Technical Specification Parameters	
Method Basis	Phosphomolybdenum Blue Spectrophotometry	
Measurement Range	0-10 mg/L (expandable and adjustable)	
Detection Limit	0.01mg/L	
Zero Drift	≤0.01mg/L	
Range Drift	≤1.0%	
Repeatability	≤5%	
Linearity	±5.0%	
Indication Error	Standard Solution 80% F.S.	±3.0%
	Standard Solution 50% F.S.	±5.0%
	Standard Solution 20% F.S.	±8.0%
Memory Effect	Standard Solution 2.0 mg/L	±0.3mg/L
	Standard Solution 80 mg/L	±0.2mg/L
pH Interference Test	±6.0%	
Actual Water Sample Comparison Test	Water Sample <2.0mg/L	≤0.2mg/L
	Water Sample ≥2.0mg/L	≤10.0%
Measurement Cycle	Min. 20 minutes; adjustable digestion time from 5 to 120 minutes based on actual water sample	
Sampling Cycle	Adjustable interval (10-9999 minutes) and whole-point measurement mode	
Calibration Cycle	Adjustable interval from 1 to 99 days at any time	
Min. Maintenance Cycle	>720 hours per session	
Output	RS-232, RS-485, 4-20mA (optional)	
Environmental Requirements	Temp-controlled indoor environment, recommended temp. +5~28°C; humidity ≤90% (non-condensing)	
Power Supply	AC230±10%V, 50±10%Hz, 5A	

Total Nitrogen TN 2131 Automatic Analyzer

Basic Principle

The water sample is mixed with a conditioning agent, and the nitrate ions in the sample react with an indicator in an acidic environment to form a colored complex. The analyzer detects this color change and converts it into a nitrate value. The amount of colored complex formed corresponds to the total nitrogen content.

Instrument Features

- Auto sample verification.
- Data retention during outages.
- Tagging for test data.
- Serial/network data output.
- Separate waste collection.
- Auto-range switching.
- 5+ years data storage.
- Auto recovery post-outage.
- Full data/log management.
- Flexible, low-maintenance valves.
- Digital interface for remote control.

Technical Specifications

Specification	Technical Specification Parameters	
Method Basis	Alkaline Potassium Persulfate Spectrophotometry	
Range	0-500 mg/L (expandable)	
Quantitative Lower Limit	≤0.05mg/L (indication error ±30%)	
Zero Drift	≤±5.0%	
Range Drift	≤±10.0%	
Repeatability	≤10%	
Linearity	±10.0%	
Indication Error	Standard Solution 80%F.S	±5.0%
	Standard Solution 50%F.S	±8.0%
	Standard Solution 20%F.S	±10.0%
Memory Effect	80%→20%	±0.3mg/L
	20%→80%	±0.2mg/L
Actual Water Sample Comparison Test	Water Sample <5.0mg/L	≤10.0%
	Water Sample ≥5.0mg/L	≤6.0%
Measurement Cycle	The minimum measurement cycle is 30 minutes	
Sampling Cycle	Adjustable interval (10-9999 minutes) and whole-point measurement mode	
Calibration Cycle	Regular manual calibration and automatic calibration functions	
Min. Maintenance Cycle	>720 hours per session	
Output	RS-232, RS-485, 4-20mA(optional)	
Environmental Requirements	Temp-controlled indoor environment, recommended temp.+5~28°C; humidity ≤90% (non-condensing)	
Power Supply	AC230±10%V, 50±10%Hz, 5A	

BOD WH 2089 Automatic Analyzer

Basic Principle

The analyzer heats a mixture of water sample, potassium dichromate digestion solution, silver sulfate solution (added as a catalyst to effectively oxidize straight-chain fatty compounds), and mercuric sulfate solution to 165°C. The dichromate ions oxidize the organic matter in the solution, causing a color change. The analyzer detects this color change and converts it into a BOD value.

Instrument Features

- Auto sample verification.
- Data retention during outages.
- Tagging for test data.
- Serial/network data output.
- Separate waste collection.
- Auto-range switching.
- 5+ years data storage.
- Auto recovery post-outage.
- Full data/log management.
- Flexible, low-maintenance valves.
- Digital interface for remote control.

Technical Specifications

Specification	Technical Specification Parameters	
Method Basis	Spectrophotometry	
Measurement Range	(0-1000)mg/L	
Detection Limit	≤15 mg/L (indication error ±30%)	
Zero Drift	≤5.0%	
Range Drift	≤10.0%	
Repeatability	≤10%	
Linearity	±10.0%	
Indication Error	Standard Solution 80%F.S	±5.0%
	Standard Solution 50%F.S	±8.0%
	Standard Solution 20%F.S	±10.0%
Memory Effect	80%→20%	±10.0%
	20%→80%	±8.0%
Actual Water Sample Comparison Test	Water Sample <5.0mg/L	≤±5mg/L
	Water Sample ≥5.0mg/L	≤10.0%
Measurement Cycle	Min. measurement cycle is 30 minutes; adjustable digestion time from 5 to 120 minutes based on actual water sample	
Sampling Cycle	Adjustable interval (10-9999 minutes) and whole-point measurement mode	
Calibration Cycle	Adjustable interval from 1 to 99 days at any time	
Maintenance Cycle	Typically once a month, about 30 minutes each time	
Output	RS-232, RS-485, 4-20mA(optional)	
Environmental Requirements	Temp-controlled indoor environment, recommended temp.+5~28°C; humidity ≤90% (non-condensing)	
Power Supply	AC230±10%V, 50±10%Hz, 5A	

Permanganate Index CODmn 2141 Automatic Analyzer

Basic Principle

A known amount of potassium permanganate and sulfuric acid is added to the sample, which is then heated at a high temperature for a certain period. The potassium permanganate oxidizes certain organic and inorganic reducing substances in the sample. After the reaction, an excess of sodium oxalate is added to reduce the remaining potassium permanganate. The excess sodium oxalate is then back-titrated with a standard potassium permanganate solution. The potassium permanganate index of the sample is calculated based on this process.

Instrument Features

- Auto sample verification.
- Data retention during outages.
- Tagging for test data.
- Serial/network data output.
- Separate waste collection.
- Auto-range switching.
- 5+ years data storage.
- Auto recovery post-outage.
- Full data/log management.
- Flexible, low-maintenance valves.
- Digital interface for remote control.

Technical Specifications

Specification	Technical Specification Parameters	
Method Basis	Spectrophotometry	
Measurement Range	0-50.00mg/L (expandable)	
Detection Limit	≤0.05mg/L((indication error±30%)	
Zero Drift	≤5.0%	
Range Drift	≤10.0%	
Repeatability	≤10%	
Linearity	±10.0%	
Indication Error	Standard Solution 80%F.S	±5.0%
	Standard Solution 50%F.S	±8.0%
	Standard Solution 20%F.S	±10.0%
Memory Effect	80%→20%	±1mg/L
	20%→80%	±1mg/L
Actual Water Sample Comparison Test	Water Sample <5.0mg/L	≤0.5mg/L
	Water Sample ≥5.0mg/L	≤6.0%
Glucose Test	＜±5%	
Actual Water Sample Comparison Test	＜±8%	
Measurement Cycle	Min. 20 minutes; adjustable digestion time from 5 to 120 minutes based on actual water sample	
Sampling Cycle	Adjustable interval (10-9999 minutes) and whole-point measurement mode	
Calibration Cycle	Adjustable interval from 1 to 99 days at any time	
Maintenance Cycle	Typically once a month, about 30 minutes each time	
Output	RS-232, RS-485, 4-20mA(optional)	
Environmental Requirements	Temp-controlled indoor environment, recommended temp.+5~28°C; humidity ≤90% (non-condensing)	
Power Supply	AC230±10%V, 50±10%Hz, 5A	

Other Parameter Water Quality Automatic Analyzers

Measurable Parameters

Hexavalent Chromium Cr2181 Automatic Analyzer	Total Chromium TCr2171 Automatic Analyzer
Copper Cu2151 Automatic Analyzer	Manganese Mn2221 Automatic Analyzer
Lead Pb2201 Automatic Analyzer	Zinc Zn2191 Automatic Analyzer
Mercury Hg2231 Automatic Analyzer	Cadmium Cd2271 Automatic Analyzer
Cyanide CN2241 Automatic Analyzer	Fluoride F2281 Automatic Analyzer
Nitrate Nitrogen NO2311 Automatic Analyzer	Orthophosphate PO43301 Automatic Analyzer
Nickel Ni2161 Automatic Analyzer	Silver Ag2261 Automatic Analyzer
Iron Fe2251 Automatic Analyzer	Volatile Phenol 2291 Automatic Analyzer
Arsenic As2211 Automatic Analyzer	TOC (Total Organic Carbon) Online Water Quality Analyzer

WH-WS Online Sludge Concentration Meter

Product Overview

The WH-WS Series Online Sludge Concentration Meter is designed for measuring the concentration of suspended solids (sludge) in municipal sewage or industrial wastewater treatment processes. Whether evaluating activated sludge and the entire biological treatment process, analyzing treated wastewater discharge, or detecting sludge concentration at different stages, the photoelectric sludge concentration meter provides continuous and accurate measurements.

Key Features

- Dual Infrared Beam Detection Principle;
- LCD Display, Easy Operation;
- Small Beam Angle for Sensor Measurement Range;
- Optimized Intelligent Signal Adaptive Processing System;
- Built-in Automatic Temperature Compensation;
- Added One-Key Recovery and Lightning Protection;
- New Anti-Interference Signal Transmission Module;
- Electromagnetic Compatibility (EMC/REI) Design.

Technical Specifications

Specification		Technical Specification Parameters
Main Unit	Measurement Range	0-5000mg/L, 0-20g/L, 0-30g/L
	Accuracy	±5%
	Resolution	0.1mg/L
	Repeatability	±1%
	Flow Rate Range	0.2-3m/s
	Power	10VA
	Pressure	10bar
	Power Supply	220VAC,DC24V
	Temperature Range	0-60℃
	Output	4-20 mA analog signal (standard), 2 relay outputs (standard), RS485 digital signal (optional)
	Measurement Unit	g/L and mg/L
	Housing Material	Imported ABS material
	Protection Rating	IP55
	Weight	1.5kg
Sensor	Temperature Range	0-45℃
	Material	316L stainless steel
	Protection Rating	IP68
	Cable Length	10 meters
	Weight	0.5kg

WH-DOY Fluorescence Method Dissolved Oxygen Meter

Product Overview

The WH-DOY Series Fluorescence Method Dissolved Oxygen Detector is a state-of-the-art intelligent detector. This product offers high levels of intelligence and flexibility, capable of simultaneously measuring dissolved oxygen levels and water temperature. It is widely used in industries such as aquaculture, municipal wastewater treatment plants, power generation, water supply, pharmaceuticals, chemicals, and food processing.

Key Features

- Large Screen Display Interface, Clear and Convenient;
- Digital Communication Function, Can Connect to Host Computer, Uses Isolation Technology for Strong Anti-Interference Capability;
- Relay Alarm Setting Function, Hysteresis Adjustable to Prevent Frequent Relay Switching;
- Password Management Function, Prevents Misoperation by Non-Professionals;
- Menu Prompt Function, Facilitates User Operation.

Technical Parameters

Specification	Technical Specification Parameters
Measurement Range	0~20.00 mg/L, Temperature (T): 0~60°C
Resolution	0.01mg/L, T:0.1°C
Accuracy	ug/L:±1.0%FS, mg/L:±0.5%FS, T:±0.5°C
Automatic Temp. Comp.	0-60°C
4-20mA Output	1=4mA+{(D-DL)/(DH-DL)}x16mA
Control Interface	Two sets of relay contacts, high and low alarm signals with optoelectronic isolation output
Signal Isolation Output	Optocoupler isolation protection for 4~20mA signal output
Relay Output	Relay hysteresis can be set arbitrarily, relay load 10A 220VAC
Operating Conditions	Ambient temperature 0~60°C, relative humidity ≤90%
Output Load	Load <500Ω (0-10mA), Load <750Ω (4-20mA)
Operating Voltage	220VAC±10%, 50/60Hz
Dimensions	96x96x115 mm, 144x144x115mm
Panel Cutout Dimensions	92x92mm, 138x138mm
Optional Features	RS485/RS232 communication interface for computer connection
Environmental Temperature	-10~45°C
Relative Humidity	Not more than 90%; no strong magnetic field interference except Earth's magnetic field

WH-SJG Acid/Alkali/Salt Concentration Meter

Product Overview

The WH-SJG Series Industrial Online Acid/Alkali/Salt Concentration Meter is a microprocessor-based online water quality monitoring instrument. This device is equipped with acid and alkali concentration electrodes for continuous monitoring and control of the concentration and temperature of aqueous solutions. It is widely used in power plants, petrochemicals, metallurgy, paper industry, environmental water treatment, light industry, and electronics. Applications include monitoring and controlling the quality of cooling water, makeup water, saturated water, condensate, and boiler water in power plants, as well as raw and product water in ion exchange, reverse osmosis EDI, and seawater distillation systems.

Key Features

- The instrument uses an LCD display;
- Intelligent English menu operation;
- Features current or communication output, freely adjustable measurement range, high/low limit alarm prompts, and two relay control switches with adjustable hysteresis range, automatic or manual temperature compensation.

Technical Parameters

Specification	Technical Specification Parameters
Measurement Range (Range varies based on electrode constant)	NaCl 0-10% $CaCl_2$ 0-22% HCL 0-10% NaOH 0-10% HNO_3 0-10% H_2SO_4 0-10% Temperature:0~80°C
Resolution	Measurement: 0.01%, Temperature: 0.1°C
Basic Error	±1.0% F.S., Temperature: ±0.5°C
Automatic/Manual Temp. Comp. Range	0~150°C (Reference Temperature: 25°C)
Automatic Temperature Compensation Error	±0.3%F.S.
Electronic Unit Stability	±0.1%F.S. ±/24h
Electronic Unit Repeatability Error	≤0.1%F.S.
Electronic Unit Alarm Error	±1%F.S.
Electronic Unit Output Current Error	±1%F.S.
Signal Output	0~10mA (Load Resistance <1.5KΩ) 4~20mA (Load Resistance <750Ω) 20~4mA (Load Resistance <750Ω)
Two Relay Control Contacts	3A 240VAC, 3A 28VDC or 120VAC
Power Supply (Optional)	85~265VAC ±10%, 50±1Hz, Power ≤3W 9~36VDC, Power ≤3W
Dimensions	98x98x130mm
Installation Method	Panel Mount (Embedded); Panel Cutout: 93x93 mm
Weight	0.6kg
Operating Environment	-10~60°C; Relative Humidity: ≤90%; No strong magnetic field interference except Earth's magnetic field

WH-CL Chloride Ion Meter

Main Features

- Password protection for calibration and settings;
- Large backlit dot matrix LCD;
- On-site technical parameter configuration using buttons;
- High stability and accuracy; suitable for industrial ion and temperature measurement;
- Strong anti-interference circuit design, can be installed and used in high-interference environments; settings and calibration data are retained after power loss; manual/automatic temperature setting and calibration; switches to manual temperature compensation if the temperature electrode is damaged; supports online data verification;
- Multiple output options (relay, 4.00~20.00 mA, RS485).

Technical Parameters

Specification		Technical Specification Parameters
ION	Measurement Range	0.00~20000 ppm
	Resolution	0.01ppm，0.1ppm，1ppm
	Measurement Accuracy	±0.01ppm，±0.1ppm，±1ppm
	Voltage Input Range	0.0~1000.0mV
Temperature Compensation	Compensation Range	-10.0~130.0℃
	Resolution	0.1℃
	Measurement Accuracy	±0.2℃
	Temperature Sensor	PT1000/NTC30K
	Temp. Comp. Mode	Automatic/Manual
Current Signal Output	Signal Output	4~20mA(adjustable)
	Current Accuracy	±0.05mA
Relay	Load	Less than 500Ω
	Load Capacity	5A 230VAC15A 30VDC
Data Communication	RS485	supports MODBUS-RTU
Other	Power Supply	90~265VAC
	Operating Temperature	0~70℃
	Protection Rating	IP65
	Installation Method	Panel Mount
	Dimensions	(H*W*D)144*144*115 mm
	Panel Cutout Dimensions	138*138mm
	Weight	0.85kg

WH-FU Fluoride Ion Meter

Main Features

- Password protection for calibration and settings;
- Large backlit dot matrix LCD;
- On-site technical parameter configuration using buttons;
- High stability and accuracy; suitable for industrial ion and temperature measurement;
- Strong anti-interference circuit design, can be installed and used in high-interference environments; settings and calibration data are retained after power loss; manual/automatic temperature setting and calibration; switches to manual temperature compensation if the temperature electrode is damaged; supports online data verificatior
- Multiple output options (relay, 4.00~20.00 mA, RS485).

Technical Parameters

Specification		Technical Specification Parameters
ION	Measurement Range	0.00~30000 ppm
	Resolution	0.01ppm，0.1ppm，1ppm
	Measurement Accuracy	±0.01ppm，±0.1ppm，±1ppm
	Voltage Input Range	0.0~1000.0mV
Temperature Compensation	Compensation Range	-10.0~130.0℃
	Resolution	0.1℃
	Measurement Accuracy	±0.2℃
	Temperature Sensor	PT1000/NTC30K
	Temp. Comp. Mode	Automatic/Manual
Current Signal Output	Signal Output	4~20mA(adjustable)
	Current Accuracy	±0.05mA
Relay	Load	Less than 500Ω
	Load Capacity	5A 230VAC15A 30VDC
Data Communication	RS485	supports MODBUS-RTU
Other	Power Supply	90~265VAC
	Operating Temperature	0~70℃
	Protection Rating	IP65
	Installation Method	Panel Mount
	Dimensions	(H*W*D)144*144*115 mm
	Panel Cutout Dimensions	138*138mm
	Weight	0.85kg

WH-CA Calcium Ion Meter

Main Features

- Password protection for calibration and settings;
- Large backlit dot matrix LCD;
- On-site technical parameter configuration using buttons;
- High stability and accuracy; suitable for industrial ion and temperature measurement;
- Strong anti-interference circuit design, can be installed and used in high-interference environments; settings and calibration data are retained after power loss; manual/automatic temperature setting and calibration; switches to manual temperature compensation if the temperature electrode is damaged; supports online data verification;
- Multiple output options (relay, 4.00~20.00 mA, RS485).

Technical Parameters

Specification		Technical Specification Parameters
ION	Measurement Range	0.00~30000 ppm
	Resolution	0.01ppm，0.1ppm，1ppm
	Measurement Accuracy	±0.01ppm，±0.1ppm，±1ppm
	Voltage Input Range	0.0~1000.0mV
Temperature Compensation	Compensation Range	-10.0~130.0℃
	Resolution	0.1℃
	Measurement Accuracy	±0.2℃
	Temperature Sensor	PT1000/NTC30K
	Temp. Comp. Mode	Automatic/Manual
Current Signal Output	Signal Output	4~20mA(adjustable)
	Current Accuracy	±0.05mA
Relay	Load	Less than 500Ω
	Load Capacity	5A 230VAC15A 30VDC
Data Communication	RS485	supports MODBUS-RTU
Other	Power Supply	90~265VAC
	Operating Temperature	0~70℃
	Protection Rating	IP65
	Installation Method	Panel Mount
	Dimensions	(H*W*D)144*144*115 mm
	Panel Cutout Dimensions	138*138mm
	Weight	0.85kg

WH-PH Industrial Online pH/ORP Meter

Product Overview

The WH-PH Series Industrial Online pH/ORP Meter is a microprocessor-based online water quality monitoring instrument. Equipped with various types of pH and ORP electrodes, it is widely used in industries such as power plants, petrochemicals, metallurgy, electronics, mining, paper manufacturing, bio-fermentation engineering, pharmaceuticals, food and beverage, environmental water treatment, and aquaculture. It provides continuous monitoring and control of the pH (ORP) value and temperature of aqueous solutions.

Key Features

- Large LCD Screen Display;
- Intelligent English Menu Operation;
- Manual/Automatic Temperature Compensation;
- Multiple Automatic Calibration Functions;
- Two Relay Control Switches;
- High/Low Limit and Hysteresis Control;
- RS485/RS232 Communication Interface;
- Simultaneous Display of pH (ORP) Value and Temperature on the Same Interface;
- Password Protection to Prevent Unauthorized Operation by Non-Staff.

Technical Parameters

Specification	Technical Specification Parameters
Measurement Range	pH: 0~14.00pH ORP: -1999~ +1999mV
Temperature (T)	0~110.0℃
Resolution	pH: 0.01PH ORP:1mV T: 0.1℃
Basic Error	pH: ±0.01pH ORP: +2mV T: ±0.5℃
Transmitter Output	4-20 mA or 0-20 mA output
Temperature Compensation Mode	Automatic/Manual switchable
Temperature Compensation Range	0~110℃
Stability	pH: ≤0.02pH/24h ORP: ≤2mV/24h
Relay Output	Two sets of 3A 240VAC
Power Supply	220VAC ±10%, 50±1 Hz, Power ≤5 W; 24VDC, Power ≤1 W
Dimensions	96x96x120mm; 144x144x115mm
Installation Method	Panel Mount (Embedded)
Panel Cutout Dimensions	92x92mm; 138x138mm
Installation Options	[Flow-through], [Pipeline], [Submersible], etc.
Optional Features	RS485/RS232 communication interface for computer connection
Environmental Temperature	-10~45℃
Relative Humidity	Not more than 90%; no strong magnetic field interference except Earth's magnetic field

WH-DD Industrial Online Conductivity Meter

Product Overview

The WH-DD Industrial Online Conductivity Meter is a microprocessor-based online water quality monitoring instrument. Equipped with electrodes of different constants, it is widely used in industries such as power plants, petrochemicals, metallurgy, electronics, mining, paper manufacturing, semiconductors, pharmaceuticals, food and beverage, environmental water treatment, and modern agriculture. It is suitable for monitoring and controlling the conductivity and temperature of aqueous solutions, including softened water, raw water, steam condensate, seawater distillation, and deionized water.

Key Features

- Large LCD Screen Display;
- Intelligent English Menu Operation;
- Manual/Automatic Temperature Compensation;
- Two Relay Control Switches;
- High/Low Limit and Hysteresis Control;
- RS485/RS232 Communication Interface;
- Dual Signal Output (Current/Voltage Optional);
- Simultaneous Display of Conductivity and Temperature on the Same Interface;
- Password Protection to Prevent Unauthorized Operation by Non-Staff.

Technical Parameters

Specification	Technical Specification Parameters
Measurement Range (Configurable)	Conductivity: 0~20μS/cm; K=0.01 Conductivity: 20~200uS/cm; K=0.1
	Conductivity: 200μS/cm~2mS/cm; K=1.0 Conductivity: 2~10mS/cm; K=10.0
	Temperature: 0~110°C
Resolution	Conductivity: 0.01μS/cm; 0.1mS/cm Temperature: 0.1°C
Basic Error	Conductivity: ±5%F·S Temperature: ±0.5°C
Temperature Compensation Range	0~110°C
Stability	±0.2%F·S/24h
Transmitter Output	0~10 mA (Load Resistance <1.5KΩ); 4~20 mA (Load Resistance <750Ω)
Relay Output	3A 240VAC, 6A 28VDC or 120VAC
Power Supply	220VAC ±10%, 50±1 Hz, Power ≤5 W; 24VDC, Power ≤1 W
Dimensions	96x96x120mm, 144x144x115mm
Installation Method	Panel Mount (Embedded)
Panel Cutout Dimensions	92x92mm, 138x138mm
Electrode Installation Options	[Flow-through], [Submersible], [Pipeline]
Optional Features	RS485/RS232 communication interface for computer connection
Environmental Temperature	Environmental Temperature: 0~60°C Relative Humidity: ≤90%
Operating Conditions	No vibration, no corrosive gases, no direct sunlight, no magnetic interference except Earth's magnetic field

WH-JM Ultrasonic Sludge Interface Meter

Product Overview

The WH-JM Series Ultrasonic Sludge Interface Meter utilizes reliable ultrasonic echo detection principles to calculate the height and thickness of the sludge layer by measuring the time it takes for the ultrasonic wave to return to the probe. This enables effective monitoring of sludge sedimentation characteristics and precise control of sludge return flow. It allows operators to optimize sludge circulation, compensate for daily wastewater fluctuations, correct abnormal conditions, and monitor separation layers in pre-concentration tanks in real time.

Technical Parameters

Specification	Technical Specification Parameters
Power Supply	AC220V/24V optional, 50Hz AC power supply
Human-Machine Interface	Screen Resolution :128*64 Key Life: >1 million presses
Signal Output	Analog Current: 4-20 mA, Load 750Ω
	Switch Output: 2 relay outputs, 220VAC/2A
	RS485 Communication : Modbus protocol
Environmental Characteristics	Ambient Temperature: -25°C to +60°C
	Relative Humidity: 45%-75%RH
	Pressure Range: ±0.1Mpa
	Measurement Range: 5m-20m
Range Specifications	Resolution: 1mm
	Accuracy: ±1%
	Blind Zone: 0.2-0.6m

Portable Multi-Parameter Water Quality Analyzer

Product Overview

This instrument complies with standards such as HJ/T 399-2007 (Water Quality - Chemical Oxygen Demand - Rapid Digestion Spectrophotometric Method), HJ 535-2009 (Water Quality - Determination of Ammonia Nitrogen - Nessler's Reagent Spectrophotometric Method), and GB 11893-1989 (Water Quality - Determination of Total Phosphorus - Ammonium Molybdate Spectrophotometric Method). It features safe and simple operation, fast and accurate detection, and high intelligence. Utilizing microcomputer control technology, it is lightweight, portable, and comes with pre-prepared reagents for immediate use. It is suitable for the determination of various water pollutants in surface water, groundwater, domestic sewage, and industrial wastewater.

Key Features

- 7-inch color LCD touchscreen, easy and quick operation;
- Patented fiber optic spectrophotometric system ensures high detection accuracy;
- Tube colorimetry: Pre-prepared reagents, ready to use, convenient, and time-saving;
- Electrochemical: Optional digital sensors for fast and accurate measurements;
- 100,000 data storage capacity, uses wear-leveling storage technology for long chip life. Data can be searched by time and fully exported to a computer via USB;
- Supports 4G upload and Type-C data cable upload;
- Allows free switching between electrochemical, photometric, and digestion modes;
- Optional sensor options, Digital sensors for fast and precise measurements;
- Long battery life, up to one week of comprehensive use. Built-in battery level display and supports battery + external power supply;
- Supports GPS and BeiDou positioning, measurement results include location information.

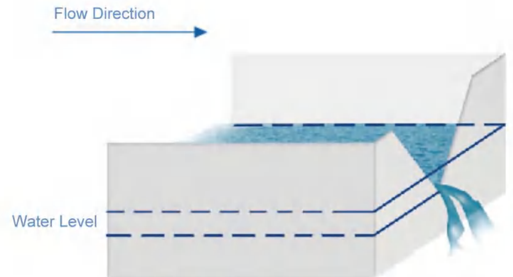
Technical Parameters

Specification	Technical Specification Parameters
Measurement Modes	Concentration, Transmittance (%), Absorbance (Abs)
Light Source	LED light, fiber optic spectrophotometric technology
Display	7-inch color resistive touch LCD screen
Wavelength Configuration	420nm, 610nm, 520nm, 580nm; ±2nm
Sample Device	Tube colorimetry, electrochemical sensors
Photometric Detection Items	Pre-configured for over 40 water quality parameters, including COD, ammonia nitrogen, total phosphorus, total nitrogen, color, turbidity, etc.
Electrochemical Detection Items	Pre-configured for dissolved oxygen, turbidity, conductivity, suspended solids, pH, ORP
Sensors	pH sensor (ORP), conductivity sensor, dissolved oxygen sensor, turbidity sensor (suspended solids), optional sensors
Optical Stability	Absorbance drift less than 0.002A within 20 minutes
Indication Error	≤±5%(F.S)
Repeatability	≤3%
Automatic Calibration	The instrument has automatic calibration; users can add and calibrate curves in addition to the factory pre-set curves
Power Supply	12V/30AH lithium iron phosphate battery with power management, battery life up to one week
Charger	14.6V,10A
Positioning	GPS and BeiDou positioning
Storage	Stores up to 100,000 test data points, wear-leveling database storage, supports time-based search
USB Export	Type-C to USB for exporting data to a computer
4G Upload	Uploads data using MODBUS protocol

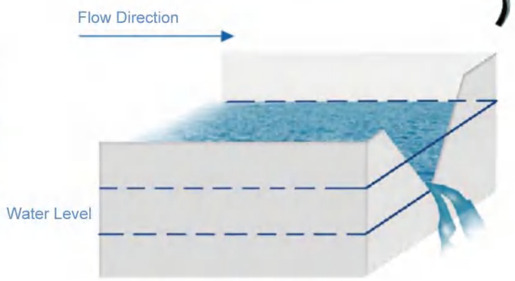
WHMQ Ultrasonic Open Channel Flow Meter

Product Overview

Based on fluid mechanics principles, the flow rate in an open channel is higher when the water level is higher, and lower when the water level is lower. The system mainly consists of a host unit and an ultrasonic probe. The host unit controls the probe to emit and receive ultrasonic waves. Using the echo-ranging principle of ultrasonic waves and their excellent reflectivity and directivity, it accurately measures the water level in the flow measurement weir or flume. The flow rate is then calculated using the corresponding "water level-flow rate" formula for the specific weir or flume.



Low flow rate, lower water level



High flow rate, higher water level

Technical Features

- Uses envelope detection echo technology, greatly improving the accuracy and stability of liquid level measurement;
- Equipped with a 5-inch industrial-grade LCD touchscreen with 800*480 resolution for user-friendly interaction;
- Supports flow rate calculation for various weirs and flumes;
- Low-power design ensures stable long-term operation with backup power.

Technical Parameters

Specification	Technical Specification Parameters
Operating Voltage	DC(10-14)V
Operating Temperature	Probe (-20~80)°C; Host (-10~50)°C
Water Level Measurement Range	(0-2)m
Water Level Measurement Error	<±5%
Flow Rate Measurement Range	(0-99999999)L/s
Flow Rate Measurement Error	<±5%
Power Consumption	<1W
Output Interface	1. RS232/RS485 digital interface; 2. 12-bit (4-20 mA) analog interfaces
Protection Rating	Probe: IP68; Host: IP65

WHPL Doppler Flow Velocity Meter/Flow Meter

Product Overview

The WHPL Series Doppler Flow Velocity Meter/Flow Meter is suitable for flow velocity and flow rate measurement in open channels and non-full pipes. The instrument uses the ultrasonic Doppler principle to measure flow velocity and the ultrasonic time-of-flight method to measure liquid level. By setting the cross-section, it calculates the flow rate. Due to its compact structure, no moving parts, long lifespan, ease of use, and maintenance-free features, it is widely used in scenarios such as sponge cities, water supply and drainage networks, black and odorous water bodies, natural rivers, open channels, and reservoirs. It is also used for flow field analysis and liquid level detection in scientific research.

Online Type

Portable Type

Pipeline Network Type

Technical Specifications

Specification	Technical Specification Parameters
Sensor Dimensions	165*50*29.5mm
Transmitter Dimensions	231*185*119mm
Installation	Dedicated bracket
Material	Metal, plastic, rubber
Protection Rating	IP68
Power Supply	DC 12V/24V
Power Consumption	<70 mA during measurement; <25 mA during sleep
Communication Interface	RS485，Modbus
Operating Temperature	-20~60℃
Operating Pressure	Maximum 6 Bar
Lightning Protection	Supported
Surge Protection	Supported
EMI Suppression	Supported

Technical Features

- Capable of measuring flow velocity in still water;
- Capable of measuring flow rate in non-full pipes, full pipes, and open channels;
- Capable of measuring flow in circular, rectangular, trapezoidal, and triangular cross-sections;
- Wide flow velocity measurement range, 0~10 m/s, bidirectional;
- High flow velocity measurement accuracy, 1 mm/s error;
- High ultrasonic liquid level measurement accuracy: 1 mm error (within 2 m);
- Pure physical measurement method, no calibration or adjustment required;
- Supports static pressure liquid level measurement;
- Supports temperature compensation for flow velocity and liquid level measurement;
- Modbus RTU protocol;
- Sensor protection rating IP68, supports long-term underwater operation;
- Online solution: Display or RTU + sensor + dedicated bracket;
- Portable solution: Sensor + handheld device + measuring rod, all accessories fit in a carrying case.

Performance Indicators

Specification	Technical Specification Parameters
Flow Velocity Range	0~10 m/s, bidirectional
Flow Velocity Resolution	0.001m/s
Flow Velocity Accuracy	0.001 m/s (when flow velocity ≤5 m/s) 0.02 m/s or 0.3% of actual peak velocity (whichever is greater)
Ultrasonic Liquid Level Range	6.5m
Ultrasonic Liquid Level Accuracy	0.001m
Ultrasonic Liquid Level Resolution	0.0005m
Static Pressure Liquid Level Range	0~10m
Static Pressure Liquid Level Accuracy	±0.1%FS
Static Pressure Liquid Level Resolution	0.001m
Temperature Range	-20-60℃

WH-DF900 Online Titration Analyzer

Product Overview

The WH-DF900 Explosion-proof Industrial Online Titration Analyzer is equipped with an A8 processor and features a modular design with a 7-inch English human-machine interface full-color touchscreen. It includes a high-precision burette, electromagnetic switching valves, a long-life solvent pump, a high-resolution color acquisition module, and various detection modules. The system can automatically determine the titration endpoint by measuring changes in electrode potential and color. Depending on the sample properties, the instrument can perform automatic color titration, pH titration, redox titration, complexometric titration, non-aqueous titration, and precipitation titration using different electrodes and detectors.

Key Features

- The analyzer fully automates sampling, injection, analysis, cleaning, data calculation, and storage.
- Supports periodic monitoring, timed monitoring, etc.
- Unattended operation, completely replacing manual analysis.
- DCS can remotely monitor the equipment's operating status.

Typical Applications

- Suitable for analysis and monitoring in industries such as chemicals, environmental protection, food, pharmaceuticals, papermaking, textiles, metallurgy, metal surface treatment, oxides, cyanides, hydrofluoric acid, ammonia water, etc. It is also used in water treatment for measuring acidity, alkalinity, and water hardness.

Technical Parameters

Specification	Technical Specification Parameters
Main Control Unit	10-inch HD full-color touchscreen display
Titration Methods	Potentiometric titration, polarimetric titration, photometric titration, and conductometric titration
Titration Modes	Complexometric titration, automatic inflection point detection, setpoint detection, set/automatic endpoint detection, crossover point (F, B, V1, V2) detection, allocation method, petroleum product road value (oil 1/oil 2), pH auto-stabilizer, dissociation constant detection, calculation mode
Burette Capacity	20 mL transparent glass burette (standard) (optional: 1, 5, 10, 50 mL burettes)
Minimum Titrant Volume	1.25 L (20 mL burette)
Accuracy	Within ±0.1% (full discharge of 20 mL cylinder)
Repeatability	Within 0.01 mL (full discharge of 20 mL cylinder, standard deviation at n=6)
Detection Range	pH: 0 to 14, resolution 0.01 pH; mV: -2000 to +2000 mV, resolution 0.1 mV
Calculation	Concentration calculation, statistical calculation, automatic pH compensation
Burettes	Expandable up to 10 (per titration workstation)
External Output	RS485 Modbus RTU or 4-20 mA
Electrodes	GE-1018 glass composite electrode, RE-201 reference electrode (electrode configuration varies by titration method)
Power Supply	AC100-240V, 50/60 Hz, 220 VA
Explosion-proof Rating	Exdeibmpz II CT4Gc
Dimensions	1800(H)x700(W)x600mm(D)

WH-KLS900 Online Coulometric Trace Moisture Analyzer

Product Overview

The WH-KLS900 Online Coulometric Trace Moisture Analyzer utilizes the Karl Fischer coulometric method, which is internationally recognized by standards such as ISO, ASTM, DIN, and BS as a highly accurate method for moisture content determination. It is suitable for measuring the moisture content in various substances and is currently one of the most reliable moisture analysis instruments. The system features a positive pressure ventilation explosion-proof design with an explosion-proof rating of Exdeibmpz IICT4 Gc. It is ideal for trace moisture analysis in chemical liquids, lithium battery electrolytes, organic solvents, gases, and other samples.

Key Features

- Fully automated sampling, electrolysis endpoint determination, data analysis, periodic storage, and historical data query.
- Automatic reagent replacement and water addition to maintain electrolysis balance, no manual operation required.
- Automatic control of background current and current, unaffected by moisture in air or carrier gas.
- Adjustable electrolysis current and endpoint settings to meet the sensitivity requirements of different samples.
- Imported materials and components ensure stable, precise, and long-lasting performance.
- Data processing CPU uses original imported chips to ensure stable and accurate calculations.
- Color touchscreen operating system with intelligent interface, English navigation, and electronic user manual for quick and convenient operation.
- Output options: Analog signal (4-20 mA) or RS485 Modbus RTU.
- Advanced 4G/5G networking technology enables real-time remote data transmission and convenient data management.

Typical Applications

- Suitable for trace moisture analysis in industries such as chemicals, fluorine chemicals, lithium batteries, petroleum and power, pharmaceuticals, etc.
- Examples include: Organic solvents: Electrolytes, alcohols, esters, acids, benzenes, phenols, etc.
- Gases: Natural gas, liquefied gas, butadiene, SF6, ammonia, hydrogen, oxygen, etc.

Technical Parameters

Specification	Technical Specification Parameters
Flow Rate	40ug H_2O/s(MAX)
Measurement Range	0-3000ppm
Electrolysis Current	0-400 mA (adjustable)
Resolution	0.1μg H20
Accuracy	20 mL transparent glass burette (standard) (optional: 1, 5, 10, 50 mL burettes)
Min. Titrant Volume	1.25 L (20 mL burette)
Accuracy	For water content between 100 μg and 1000 μg: error ≤ ±2 μg
	For water content above 1000 μg: error ≤ ±0.2% (excluding sampling error), standard deviation ≤ 0.3%
Special Functions	Automatic drift compensation, automatic deduction of environmental and background moisture, optional computer workstation, fault self-check and prompt
Operating Environment	Temperature: 2°C ~ 50°C; Humidity: ≤90%
Dimensions	1800H x 700W x 700Dmm
Explosion-proof Rating	ExdeibmpzIICT4GC
Power Supply	AC220V 50Hz 1KW
Signal Output	4-20 mA or RS485 Modbus RTU

WH-HF900 Anhydrous Hydrogen Fluoride Moisture Analyzer

Product Overview

The WH-HF900 Anhydrous Hydrogen Fluoride Moisture Analyzer is designed for online analysis of moisture content in hydrogen fluoride during industrial processes. The analyzer measures the conductivity and temperature of the solution and outputs the moisture content based on the correlation curve between conductivity and moisture. The sensor is durable, corrosion-resistant, and exhibits excellent chemical tolerance, making it particularly suitable for applications in the chemical industry. The large sensor opening and anti-fouling materials prevent clogging and deposition in highly contaminated media. The inductive measurement principle ensures complete electrical isolation from the medium.

Key Features

- The analyzer consists of three parts: a moisture/conductivity measurement electrode, a dedicated corrosion-resistant flow cell, and an explosion-proof display controller. The corrosion-resistant flow cell is directly installed on the hydrogen fluoride process pipeline for real-time online analysis of moisture content in hydrogen fluoride.
- No complex parameter settings or calibration processes are required. Daily operation requires no maintenance, and there are no consumable spare parts.
- Explosion-proof housing and IP65 protection rating cover structure make it highly suitable for harsh environments and explosion-proof locations.
- Corrosion-resistant ring conductivity electrode prevents scaling and ensures long-term stability.
- High sampling rate with internal damping for smooth data output.
- Output signals include historical trend recording, with an optional recording time of up to 8 hours, facilitating process inspection and parameter backup.
- The display is light blue but turns red in case of analyzer/sensor failure. User-friendly interface with easy-to-understand icons and simple maintenance.

Technical Parameters

Specification	Technical Specification Parameters
Measurement Range	0-3000 ppm (factory setting: 0~100 ppm)
Signal Output	4-20 mA, user-programmable, current isolation
Measurement Error	±5%FS
Power Supply	220 VAC, 24 VDC optional
Sensor Material	PFA
Flow Cell Material	Steel-lined PTFE
Medium Temperature	-25~110℃
Medium Pressure	<1.5MPA
Process Connection	DN80 PN25 HG20592 national standard flange (customizable for special specifications)
Ambient Temperature	-25~50℃
Ambient Humidity	Max 80% RH, non-condensing
Alarm	Relay SPDT SA (external audible/visual alarm optional)
Communication	MODBUS 485, other communication protocols optional
Ambient Humidity	7-inch color touchscreen
Explosion-proof Rating	EXDEIICT6
Protection Rating	IP65
Lightning Protection	Surge protection on all I/O and power lines

WH-GXS900 Liquid Phase Trace Moisture Analyzer

Product Overview

Capacitance and complex impedance analysis technology has been widely applied in various fields of the chemical, silicone, and petrochemical industries. The rigorous calculation results fed back into the algorithm, combined with the unique floating electrode design, enable the GXS900 series to accurately measure moisture content in specific media with PPM-level water content, as well as to stably and accurately measure the moisture content of oil products over a wide range (1%-99%).
In PPM-level moisture measurement scenarios, the circuit needs to achieve single-digit aF-level precision. It is important to note that ultra-high-precision capacitance measurement circuits, environmental temperature changes, and slight sensor deformations can all lead to inaccurate measurements.
The GXS900 series adopts a fully digital demodulation circuit, ensuring ultra-high measurement accuracy while significantly reducing the impact of temperature-induced baseline drift. The capacitance sensor uses an extremely stable crystal and alloy ring structure, ensuring the stability of the sensor during use.
The water content in crude oil can vary over a wide range (1%-99%). The challenge in this scenario is the non-linear relationship between the increase in water content and the change in capacitance value. The higher the water content, the smaller the change in capacitance value, and low-response measurement methods often result in significant errors. In the simulation laboratory, the relationship between various liner material specifications and the measured capacitance under the same water content conditions was studied, and the reliability of the simulation results was repeatedly verified under laboratory conditions. The GXS900 series has ultra-high response performance and accuracy, capable of accurately capturing instantaneous signal changes and displaying the true moisture content.

Key Features

- Compared to extraction-based measurement methods with multiple leakage points, the GXS900 series uses in-situ embedded installation, ensuring safer use and maintenance.
- Utilizes ultra-high-precision capacitance sensors with strong anti-interference capability, stable measurements, and no signal drift due to temperature changes.
- Employs medium temperature compensation to ensure accurate capacitance measurements at different temperatures. It also accounts for the temperature-dependent dielectric constant of different substances, enabling precise determination of their proportion in the mixture.
- Unique circuit and algorithm design eliminates spatial electromagnetic interference.
- Offers pipeline-type and insertion-type sensor structures based on process pipe diameter.
- Embedded pipeline-type sensors use non-contact measurement, preventing clogging, avoiding additional pressure loss, and eliminating the risk of material contamination.
- Insertion-type sensor structure is easy to install, resistant to clogging, and supports multiple dielectric constant mixing models, making calibration easier with software.
- Can integrate an oil-water mixer to maintain the medium in an emulsion state, avoiding measurement inconsistencies caused by phase separation.

Technical Parameters

Specification		Technical Specification Parameters
Electrical Connection		M20 or 3/4-inch NPT female conduit interface
Process Connection		Flange mounting, DN10~DN250 (pipeline type) or direct insertion
Process Temperature		<150℃ continuous
Process Pressure		<10.0MPa
Wetted Materials		PTFE, ceramic
Explosion-proof Rating		ExdialICT4/T5/T6 Gb; Ex tDA21iaD20 IP66
Ambient Temperature		-40℃~80℃, non-condensing
Explosion-proof Rating		24VDC
Communication Methods		RS485, MODBUS, 4~20 mA signal, HART optional
Water in Organic Matter	Resolution	1 ppm (depends on organic composition and operating conditions)
	Measurement Range	10,000 ppm (depends on organic composition and operating conditions)
	Zero Drift	<0.1%FS
Water in Oil	Resolution	0.1%
	Measurement Range	99% (depends on operating conditions and sensor structure)
	Zero Drift	<0.01% FS

WH-TM900 Online Trace Moisture Analysis System (Electrolytic Method)

Product Overview

The WH-TM900 Online Trace Moisture Analyzer is equipped with a corrosion-resistant gas trace moisture sensor. The moisture analysis principle is based on the P_2O_5 electrolytic method, enabling continuous, fast, and accurate measurement of trace moisture in gases.

Key Features

- Multiple parameter display and settings (humidity, dew point, pressure, PPM).
- Rich parameter settings and query functions, complete display information.
- Sensor with strong corrosion resistance, suitable for various corrosive gases.
- Strong anti-interference capability and high reliability.
- Provides standard MODBUS protocol and interface, facilitating integration into industrial field testing systems.
- Over-limit alarm function: When limits are exceeded, dew point or PPM values flash, and the corresponding alarm relay closes.
- Comprehensive software functionality, user-friendly "human-machine interface," and high-definition LCD display.

Typical Applications

- Fluorochemicals, chlor-alkali, PVC, chemical industry, natural gas, petrochemicals, moisture analysis in gases, polysilicon/organosilicon

Technical Parameters

Specification	Technical Specification Parameters		
Measurement Principle	P_2O_5 Electrolytic Method	Operating Temperature	+5~65℃
Measurement Range	0~100~3000ppm	Operating Humidity	<80% RH
Accuracy	±5% of measured value	Storage Temperature	-10~+65°℃(non-condensing)
Repeatability	±2% (at 10.0 ppm)	Storage Humidity	<90% RH
Stability	+1%FS/7d	Sample Gas Pressure	MAX 0.1 MPa (flowing through the sensor)
Response Time	<5S	Bypass Flow Rate	1.5~2L/min
Recovery Time	T50<2min	Analog Output	4~20 mA (optional communication protocols)
Measurement Mode	Online	Load Allowance	<500 Ω
Display	128x64LCD	Relay Output	SPDT5A
Power Supply	85~264VAC，50/60Hz	Cable Glands	2 waterproof glands
Power Consumption	<20 VA (excluding electric heating)	Gas Connection	6 mm double ferrule
Sensor Lifespan	>2 years (under normal use)	Installation Method	Floor-standing