Product Catalogue

Water Quality Analysis Instruments

Delfino

Environment Technology Co., Ltd

ABOUT US

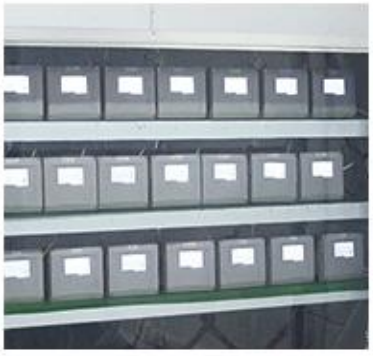
Suzhou Daruifuno Environmental Technology Co., Ltd., established in 2015, is a comprehensive manufacturing enterprise dedicated to the research and development, production, sales and service of water quality analysis instruments.

R & D




Produce





The company takes "reasonable price, fast production time, and good after-sales service" as its purpose.

We hope to cooperate with more customers for common development and mutual benefit.

Certificate

Daruifuno has been working hard to improve product quality and obtained **ISO9001 quality management system certification** in 2019.

The company is committed to researching and developing products with independent intellectual property rights. By the end of 2020, the company has obtained a total of 17 patents of various types, one of which is an invention patent; and 8 software copyrights.


DCI.

QUALITY MANAGEMENT SYSTEM CERTIFICATE

This is to Certify that the QUALITY MANAGEMENT SYSTEM of

Suzhou Delfino Environmental Technology Co., Ltd.

Registered Address: (Founded Fangchanggu Zhihuifang 301),No. 3 Xupai Road, New District, Suzhou, Jiangsu, P.R China

Audit Address: No. 3, Xupai Road, Suzhou High-tech Zone (202, 301, 302, 303 of founded Fangchanggu Zhihuifang Building 1, 206 of Building 2)

has been assessed by DCI Certification Service and found to comply with

GB/T 19001-2016 idt ISO9001:2015

for the

Design and assembly of water quality analysis instruments

Certificate Number: 201101

Unified Social Credit Code: 91320600349190BXX

Initial Certification Date: 19 Apr. 2021

Surveillance Audit Pass Label: Surveillance 1 Audit Pass Label | Surveillance 2 Audit Pass Label | Recertification Audit Pass Label

Certification Manager

Certificate Issue Date: 19 Apr. 2021 — Certificate Expiry Date:19 Apr. 2024

This certificate is issued by DCI Certification Ltd. The certificate holder shall perform the supervision and audit in accordance with the certification and accreditation rules and the certification contracts, and offer a surveillance audit pass label to maintain the validity of certificate. To verify the validity of certificate, please visit our website (www.dcigloball.com.cn) or scan the QR code above by the client, or visit the CNCA website. (www.cnca.gov.cn).

DCI Certification Ltd

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Multi-parameter Analyzer

PH/ORP Analyzer

The APX series of pH/ORP analyzers produced by Daruifuno can be connected to a variety of traditional pH/T or ORP composite sensors to realize the measurement of PH/ORP/T.

Application:

◇ Water treatment monitoring:

Drinking water/Surface water source water quality/Groundwater/Sewage discharge monitoring/Urban drainage pipe network monitoring, etc.

◇ Industrial process monitoring:

Chemical/Petroleum/Papermaking/Food and medicine/Electroplating/PCB manufacturing, etc.

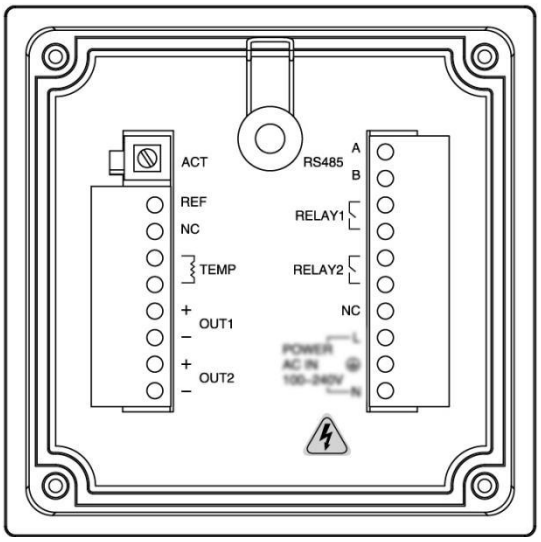
APX1 Series

Features& Advantages

- Small and compact lightweight design
- 3.2-inch large LCD screen
- User-friendly Chinese and English language interface
- Password can be set to prevent misoperation
- 2 SPST multi-function and settable relays
- 0/4~20mA active current loop output
- RS485 interface, Modbus RTU communication protocol
- Temperature detection and compensation function
- Shortcut button helps you perform daily maintenance quickly
- IP66 waterproof level, sealed enclosure can isolate pollution and corrosive gas
- Panel installation, easy to install

Specification & Model

Model	APX1-L1	APX1-C1	APX1-C2	APX1-G2
Measuring Range	PH: 0~14pH ORP: ±1200mV	PH: -2~16pH ORP: ±2000mV		
TEMP measuring Range	-10～150℃ /14~302℉			
Resolution	PH: 0.01pH ORP: 1mV TEMP: 0.1℃/ 0.1℉			
Accuracy	0.1% of the measuring range or ±0.02pH / ±2mV			
Temperature Compensation	Automatic or manual(NTC10K or PT1000)			
Relay Output	Two SPST relays, maximum load 3A/250VAC			
Communication	——		RS485 Modbus RTU	
Signal Output	A 0/4~20mA current output maximum load 1000Ω		Two 0/4~20mA current outputs maximum load 1000Ω	
Sensor Diagnosis	Image display			Image display with buzzer warning
Configuration	Power failure protection, indefinite retention of parameters			
Language	Chinese and English			
Display	128*64 3.2-inch large graphic dot matrix LCD			
Protection Grade	IP66			
Enclosure Material	Enhanced ABS			
Power Supply	AC: 100~240V or DC:18~36V			
Dimension	100*100*120mm			
Hole Size	92*92mm			
Operating Temperature	0～60℃, RH<95%, non-condensing			
Storage Temperature	-20～70℃, RH<55%, non-condensing			
Installation Method	Panel			
Weight	500g			
Power Consumption	About 3W			



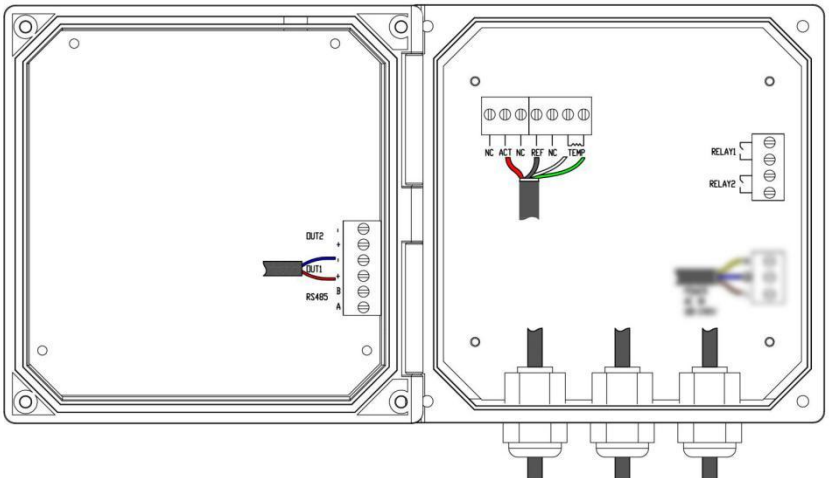
APX2 Series

Features& Advantages

- Time and historical data recording function
- 3.2-inch large LCD screen
- User-friendly Chinese and English language interface
- Password can be set to prevent misoperation
- 2 SPST multi-function and settable relays
- 0/4~20mA active current loop output
- RS485 interface, Modbus RTU communication protocol
- Temperature detection and compensation function
- IP66 waterproof level, sealed enclosure can isolate pollution and corrosive gas
- Support a variety of installation methods
- "OTA" technology for remote software management

Specification & Model

Model	APX2-C3	APX2-G3	APX2-G4
Measuring Range	PH: -2~16pH ORP: ±2000mV		
Ground	——	Differential signal (Compatible with ground sensor)	
TEMP measuring Range	-10～150℃ /14~302℉		
Resolution	PH: 0.01pH ORP: 1mV TEMP: 0.1℃/ 0.1℉		
Accuracy	0.1% of the measuring range or ±0.02pH / ±2mV		
Temperature Compensation	Automatic or manual(NTC10K or PT1000)		
Relay Output	Two SPST relays, maximum load 3A/250VAC		
Communication	RS485 Modbus RTU / JSON text data format		
OTA	——		WIFI(GSM ； CDMA optional)
Signal Output	Two 0/4~20mA current outputs, maximum load 1000Ω		
Sensor Diagnosis	Image display with buzzer warning		
Configuration	Power failure protection, indefinite retention of parameters		
Time/Data recording	Record 14,000 historical data; Save the last 100 maintenance data		
Language	Chinese and English		
Display	128*64 3.2-inch large graphic dot matrix LCD		
Protection Grade	IP66		
Enclosure Material	Enhanced ABS		
Power Supply	AC: 100~240V or DC:18~36V		
Dimension	144*144*120mm		
Hole Size	138*138mm		
Operating Temperature	0～60℃, RH<95%, non-condensing		
Storage Temperature	-20～70℃, RH<55%, non-condensing		
Installation Method	wall mounting, pipe clamp, panel		
Weight	800g		
Power Consumption	About 7W		



PH/ORP Sensor

The pH/ORP electrode is an important accessory that contacts with the measuring solution and connects to the measuring instrument to realize pH or ORP measurement.

Application:

◇ Water treatment monitoring:

Drinking water/Surface water source water quality/Groundwater/Sewage discharge monitoring/Urban drainage pipe network monitoring, etc.

◇ Industrial process monitoring:

Chemical/Petroleum/Papermaking/Food and medicine/Electroplating/PCB manufacturing, etc.

PH Sensors

Features& Advantages

- PH composite electrode, the reference electrode is Ag/AgCl;
- Low-impedance hemispherical glass head, high strength, not easy to break;
- There are three kinds of shells: Glass material is corrosion-resistant, ABS's structure is firm, PPS shell is resistant to high temperature and corrosion;
- The ring-shaped ceramic hole and porous Teflon membrane have the advantages of fast response, not easy to be blocked, and easy to clean; The ceramic hole sand core has the characteristics of smooth response, no potential drift, and good stability;
- Low noise lead with customizable length within 60 meters.

Specification & Model

Modle	ASP100	ASP101	ASP200	ASP201	ASP300	ASP400	ASP500	ASP600
PH Range	0~14pH							
Resolution	0.01pH							
Shaft Material	Glass	Glass	Glass		ABS	PPS	ABS	PPS
Working TEMP	0~100℃		0~80℃	0~135℃	0~60℃	0~100℃	0~60℃	0~100℃
Reference System	double salt bridge							
Reference Electrode	Ag/AgCl							
Electrolyte	Gel	Crystal	Gel		Solid Gel	Crystal	Gel	Crystal
Working Pressure	0~4Bar		0~2Bar			0~6Bar	0~4Bar	
Temperature Unit	——		Vacant/NTC10K /PT1000 (optional)				NTC10K	
Membrane	Ceramic hole		Porous Teflon				Ceramic hole	
Glass Head	Blue low impedance		Transparent low impedance				Blue low impedance	
Dimension	Diameter: 12mm Length: 120mm				Diameter: 35mm Length: 260 mm (include the cleaning cover)			
Thread Size	——		PG13.5		1 inch NTP(both ends)			
Lead Wire	Standard 3m		Standard 5m		Standard 10m			
Ground	——						SUS316 solution	Titanium solution
Cleaning	——				A protective cover with its own cleaning interface			
Application	Clean water	Dirty water			Industrial water	Sewage	Pure water	Industrial sewage

ORP Sensors


ASR200


ASR201


ASR300


ASR301


ASR400


ASR401

Features& Advantages

- ORP composite electrode, the reference electrode is Ag/AgCl;
- There are three kinds of shells: glass, ABS and PPS plastic shell encapsulation. Glass material is corrosion-resistant, ABS structure is firm, PPS shell is resistant to high temperature and corrosion;
- There are two types of detection heads: ring-shaped platinum has a wide response range; Flat platinum is easier to clean and polish;
- Low noise lead with customizable length within 60 meters;
- Porous Teflon membrane has the advantages of fast response, not easy to be blocked, and easy to clean.

Specification & Model

Model	ASR200	ASR300	ASR400	ASR201	ASR301	ASR401
ORP Range	±1500mV			±2000mV		
Reference Electrode	Ag/AgCl					
Electrolyte	Gel	Solid Gel	Crystal	Gel	Solid Gel	Crystal
Detection Heads	Flat platinum			Ring-shaped platinum		
Working Pressure	0~2 Bar		0~4Bar	0~2 Bar		0~4Bar
Working TEMP	0~80℃	0~60℃	0~100℃	0~80℃	0~60℃	0~100℃
Shaft Material	Glass	ABS	PPS	Glass	ABS	PPS
Membrane	Porous Teflon membrane					
Thread Size	PG13.5	1 inch NTP(both ends)		PG13.5	1 inch NTP(both ends)	
Dimension	D：12mm L：120mm	D: 35mm L: 260 mm (include cleaning cover)		D：12mm L：120mm	D: 35mm L: 260 mm (include cleaning cover)	
Lead Wire	Standard 5m	Standard 10m		Standard 5m	Standard 10m	
Temperature Unit	——					Vacant/NTC10K (optional)
Application	Clean water	Industrial water	Industrial sewage	Dirty water	Industrial water	Industrial sewage
Cleaning	——	A protective cover with its own cleaning interface		——	A protective cover with its own cleaning interface	

Dissolved Oxygen Analyzer

This set of dissolved oxygen analyzer uses **Fluorescence Method** to measure dissolved oxygen in water.

Application:

- Sewage
- Surface water monitoring
- Aquaculture water bodies
- Urban sewage treatment
- Industrial wastewater treatment
- Aquariums

Dissolved Oxygen Controller

OPD70

Features& Advantages

- Compatible with DRFN digital dissolved oxygen sensors including **fluorescence and polarography**;
- Automatic compensation for air pressure display;
- The working status of the sensor can be queried, including reading the serial number;
- OTA download technology as a smart configuration option for the instrument;
- Time and historical data recording function;
- 3.2-inch large LCD screen;
- User-friendly Chinese and English language interface;
- Password can be set to prevent misoperation;
- 2 SPST multi-function and settable relays;
- Two 0/4~20mA active current loop outputs;
- RS485 interface, Modbus RTU communication protocol;
- IP66 waterproof level, sealed enclosure can isolate pollution and corrosive gas;
- Support a variety of installation methods.

Specification & Model

Model		DUC2-DO-H-A	DUC2-DO-H-D	DUC2-DO-S-A	DUC2-DO-S-D
Software Version		DRFN DO Analysis software V1.0			
Sensor Input		Compatible with all DRFN's DO Digital Sensors			
Display Range	DO Concentration	DO concentration 0-50mg/L (or ppm), unit can be switched			
	Saturation	0-400%			
	TEMP	-10～500℃ /14~932℉			
	Atmospheric Pressure	30-120kpa			
Resolution	DO Concentration	0.01 mg/L （or ppm）			
	Saturation	1%			
	TEMP	0.1℃/ 0.1℉			
Salinity Compensation Range		Input range 0.0001-99999ppt			
Relay Control		2 settable SPST relays with a maximum load of 3A/250VAC			
Analog Current Output		2 settable 0/4~20mA current outputs, max load 1000Ω			
Communication Method		RS485 interface MODBUS RTU support JSON text data format			
OTA		——	——	Default WIFI	Default WIFI
Display Screen		128*64 LCD, adjustable backlight mode, adjustable display rate			
Configuration Information		Power off protection, parameters are retained indefinitely			
Time/Data Record		Record 14000 historical data Record interval can be set between 1~999 minutes			
Maintenance Records		Last 100			
Operating Temperature		0～60℃， RH<95% (no condensation)			
Storage Temperature		-20～70℃, RH<55% (no condensation, precision instruments)			
Shell Material		Enhanced ABS			
Protection Grade		IP66			
Dimension		144*144*120 mm			
Mounting Method		Wall mounting, pipe clamping, panel (hole size 138*138 mm)			
Electrical Interface		The back end reserved 3 M12*1.5 Gram head, line diameter 3~6.5 mm			
Power Supply		100～240VAC	18~36VDC	100～240VAC	18~36VDC
Power Consumption		About 7W			
Weight		About 800g			

Dissolved Oxygen Sensor

Features& Advantages

- Fluorescence principle
- The digital sensor is conducive to long-distance signal transmission without serious signal attenuation
- No calibration required, can meet the requirements of field work, short-term or long-term operations
- Without consuming oxygen, accurate measurement can be achieved when oxygen concentration is low
- All-in-one package, can be used with the online transmitters, DTU, and portable instruments
- RS485 interface, Modbus RTU, support access to standard industrial control system
- The protection grade is IP68, can work continuously and stably under water for a long time
- Internal storage of calibration data, support offline calibration, plug and play on site

Specification & Model

Model	OPD70
Measuring Range	Oxygen content: 0.00~20.00 mg/L saturation: 0~200%
Resolution	0.01mg/L 1%
Accuracy	0.1 mg/L 1%
Response Time	T_{90} less than 60s
Temperature Compensation	Automatic, built-in temperature unit
Calibration Method	Zero position/slope/deviation
Work Pressure	0~3Bar
Operating Temperature	0.0~50.0℃
Material	ABS
Dimensions	Diameter: 35mm Total length: 260mm
Installation Size	1"NPT at both ends of the installation thread; insertion depth 100 (including cleaning plug 115)
Protection Grade	IP68
Weight	170g

Digital PH/ORP Analyzer

This set of digital PH/ORP analyzer is developed and produced based on digital requirements. It is divided into two basic models: potentiometric PH glass electrode and platinum ORP electrode.

Application:

◇ Water treatment monitoring:
Drinking water/Surface water source water quality/Groundwater/Sewage discharge monitoring/Urban drainage pipe network monitoring, etc.

◇ Industrial process monitoring:
Chemical/Petroleum/Papermaking/Food and medicine/Electroplating/PCB manufacturing, etc.

Digital PH/ORP Controller

DRH70

DPH70

Features & Advantages

- Compatible with all DRFN digital PH/ORP sensors;
- Automatic temperature compensation;
- The working status of the sensor can be queried, including reading the serial number;
- Support a variety of installation methods;
- Time and historical data recording function;
- 3.2-inch large LCD screen;
- User-friendly Chinese and English language interface;
- Password can be set to prevent misoperation;
- 2 SPST multi-function and settable relays;
- Two 0/4~20mA active current loop outputs;
- RS485 interface, Modbus RTU communication protocol;
- IP66 waterproof level, sealed enclosure can isolate pollution and corrosive gas;
- OTA download technology as a smart configuration option for the instrument.

Specification & Model

Model		DUC2-PH-H-A	DUC2-PH-H-D	DUC2-PH-S-A	DUC2-PH-S-D
Software Version		DRFN PH Analysis software V1.0			
Sensor Input		Compatible with all DRFN's PH Digital Sensors			
Display Range	PH	-2~+16pH			
	ORP	±3000mV			
	TEMP	-10～500℃ /14~932℉			
Resolution	PH	0.01pH			
	ORP	1mV			
	TEMP	0.1℃/ 0.1℉			
Relay Control		2 settable SPST relays, max. Load 3A/250VAC			
Analog Current		2 settable 0/4~20mA current outputs, max. Load 1000 ohms			
Communication Method		Two-wire RS485 interface; MODBUS RTU; JSON text data format			
OTA		——	——	Default WIFI	Default WIFI
Display Screen		128*64 black-and-white graphic lattice LCD adjustable backlight mode adjustable display rate			
Configuration Information		Power off protection, parameters are retained indefinitely			
Time/Data Record		Year/month/day/hour/min/second, record 14000 historical data record interval can be set between 1~999 minutes			
Maintenance Records		Last 100 times			
Protection Level		IP66			
Operating Environment		0～60℃，RH<95% (no condensation)			
Storage Environment		-20～70℃，RH<55% (no condensation, precision instruments)			
Shell Material		Enhanced ABS			
Dimension		144*144*120 mm			
Mounting Method		Wall mounting, pipe clamping, panel (hole size 138*138 mm)			
Electrical Interface		The back end reserved 3 M12*1.5 Gram head, line diameter 3~6.5 mm			
Power Supply		100～240VAC	18~36VDC	100～240VAC	18~36VDC
Power Consumption		About 7W			
Weight		About 800g			

Digital PH/ORP Sensor

Features& Advantages

- All-in-one package, can be used with the online transmitters, DTU, and portable instruments
- RS485 interface, Modbus RTU, support access to standard industrial control system
- The protection grade is IP68, can work continuously and stably under water for a long time
- Internal storage of calibration data, support offline calibration, plug and play on site

Specification & Model

Model	DPH70	DPH79	DRH70	DRH79
Electrical Isolation	——	√	——	√
Measuring Range	PH: 0~14pH TEMP: 0~50℃		ORP: ±2000mV TEMP: 0~50℃	
Resolution	0.01pH/0.1℃		1mV/0.1℃	
Accuracy	±0.02pH		±2mV	
Temperature Compensation	Automatic, built-in temperature unit			
Calibration Method	Zero position/slope/deviation			
Work Pressure	0~2Bar			
Operating Temperature	0.0~50.0℃			
Shell Material	ABS			
Dimension	Diameter: 35mm Total length: 260 mm (include cleaning cover)			
Installation Size	1"NPT at both ends of the installation thread; insertion depth 100 (including cleaning plug 115)			
Protection Grade	IP68			
Weight	150g			

Digital Conductivity/TDS Analyzer

This set of digital Conductivity/TDS analyzer can detect conductivity, resistivity, salinity, TDS and temperature in water.

Application:

- Drinking water
- Pure water
- Cooling water
- Sewage
- Industrial process water

Digital Conductivity Controller

Features & Advantages

- Compatible with all DRFN conductivity sensors;
- Separately have a list of controller and sensor settings for quick and detailed parameter setting;
- The working status of the sensor can be queried, including reading the serial number;
- Support a variety of installation methods;
- Time and historical data recording function;
- 3.2-inch large LCD screen;
- User-friendly Chinese and English language interface;
- Password can be set to prevent misoperation;
- 2 SPST multi-function and settable relays;
- Two 0/4~20mA active current loop outputs;
- RS485 interface, Modbus RTU communication protocol;
- IP66 waterproof level, sealed enclosure can isolate pollution and corrosive gas;
- OTA download technology as a smart configuration option for the instrument.

Specification & Model

Model		DUC2-EC-H-A	DUC2-EC-H-D	DUC2-EC-S-A	DUC2-EC-S-D
Software Version		DRFN EC Analysis software V1.0			
Sensor Input		Compatible with all DRFN's EC Digital Sensors			
Display Range	Conductivity	0.000μS /cm ~500mS/cm			
	Resistivity	0.01Ω.cm~18MΩ.cm			
	TDS	0.000mg/L~500g/L			
	Salinity	(0.00~10.0)%			
	Temp	-10～500℃ /14~932℉			
Resolution	Conductivity	0.001μS /cm			
	Resistivity	0.01Ω.cm			
	TDS	0.001mg/L			
	Salinity	0.01%			
	Temp	0.1℃/ 0.1℉			
Relay Control		2 settable SPST relays with a maximum load of 3A/250VAC			
Analog Current Output		2 settable 0/4~20mA current outputs, max. load 1000Ω			
Communication Method		Two-wire RS485 interface MODBUS RTU support JSON text data format			
OTA		——	——	Default WIFI	Default WIFI
Display Screen		128*64 LCD, adjustable backlight mode, adjustable display rate			
Configuration Information		Power off protection, parameters are retained indefinitely			
Time /Data Record		Year/month/day/hour/min/second, record 14000 historical data record interval can be set between 1~999 minutes			
Maintenance Records		Last 100 times			
Operating Environment		0～60℃，RH<95% (no condensation)			
Storage Environment		-20～70℃，RH<55% (no condensation, precision instruments)			
Shell Material		Enhanced ABS			
Protection Grade		IP66			
Dimension		144*144*120 mm			
Mounting Method		Wall mounting, pipe clamping, panel installation (hole size 138*138 mm)			
Electrical Interface		The back end reserved 3 M12*1.5 Gram head, line diameter 3~6.5 mm			
Power Supply		100～240VAC	18~36VDC	100～240VAC	18~36VDC
Power Consumption		About 7W			
Weight		About 800g			

Digital Conductivity Sensor

Features& Advantages

- Electrically isolated communication and power interface, strong anti-interference ability
- 4-electrode or 2-electrode structure, automatic range switching, easy to clean
- All-in-one package, can be used with online transmitters, DTU, and portable instruments
- RS485 interface, Modbus RTU, support access to standard industrial control system
- Protection grade IP68, can work continuously and stably under water for a long time
- Internal storage of calibration data, support offline calibration, plug and play on site

Specification & Model

Model	DEC60	DEC69	DEC70	DEC79	DEC351
Measuring Principle	Plane 4-electrode		Graphite 2-electrode		Conductivity cell 4-electrode
Electrical Isolation	——	√	——	√	——
Measuring Range	Automatic switch: 0.0~200.0 μS/cm 0~2000 μS/cm 0.00~20.00mS/cm 0.0~200.0mS/cm 0~50℃		Automatic switch: 0~200.0 μS/cm 0~2000 μS/cm 0.00~10.00 mS/cm 0~50℃		Automatic switch: 0~5000 μS/cm 0.0 ~100.0 mS/cm 0~50℃
Resolution	0.01μS/cm 0.1℃				
Accuracy	1% of full scale				
Temperature Compensation	Automatic, built-in temperature unit				
Calibration Method	Multi-point calibration				2-point calibration
Work Pressure	0~6Bar				
Operating Temperature	0.0~50.0℃				
Shell Material	Enhanced ABS				PEEK+Nickel
Dimension	D: 35mm Total length: 260 mm (include cleaning cover)				D:22mm L:150mm
Installation Size	1"NPT at both ends of the installation thread; insertion depth 100 (including cleaning plug 115)				——
Protection Grade	IP68				
Weight	150g				200g

Digital Infrared Turbidity Analyzer

This digital infrared turbidity analyzer adopts the 90° near-infrared light scattering principle and conforms to the ISO7027 standard to measure the turbidity of water samples.

Application:

- Tap water
- Water station
- Surface water
- Sewage
- Industrial water

Digital Infrared Turbidity Controller

OPTU8

Features & Advantages

- Compatible with all DRFN digital infrared turbidity sensors;
- Separately have a list of controller and sensor settings for quick and detailed parameter setting;
- The working status of the sensor can be queried, including reading the serial number;
- Support a variety of installation methods;
- Time and historical data recording function;
- 3.2-inch large LCD screen;
- User-friendly Chinese and English language interface;
- Password can be set to prevent misoperation;
- 2 SPST multi-function and settable relays;
- Two 0/4~20mA active current loop outputs;
- RS485 interface, Modbus RTU communication protocol;
- IP66 waterproof level, sealed enclosure can isolate pollution and corrosive gas;
- OTA download technology as a smart configuration option for the instrument;

Specification & Model

Model	DUC2-TU-H-A	DUC2-TU-H-D	DUC2-TU-S-A	DUC2-TU-S-D
Software Version	DRFN TU Analysis software V1.0			
Sensor Input	Compatible with all DRFN's TU Digital Sensors			
Display Range	0.001NTU~4000NTU			
Resolution	0.001 NTU			
Relay Control	2 settable SPST relays with a maximum load of 3A/250VAC			
Analog Current Output	2 settable 0/4~20mA current outputs with a maximum load 1000Ω			
Communication Method	Two-wire RS485 interface; MODBUS RTU; support JSON text data format			
OTA	——	——	Default WIFI	Default WIFI
Display Screen	128*64 black-and-white graphic lattice LCD adjustable backlight mode adjustable display rate			
Configuration Information	Power off protection, parameters are retained indefinitely			
Time/Data Record	Year/month/day/hour/min/second, record 14000 historical data record interval can be set between 1~999 minutes			
Maintenance Records	Last 100 times			
Protection Level	IP66			
Operating Environment	0～60℃，RH<95% (no condensation)			
Storage Environment	-20～70℃，RH<55% (no condensation, precision instruments)			
Shell Material	Enhanced ABS			
Dimension	144*144*120 mm			
Mounting Method	Wall mounting, pipe clamping, panel installation (hole size 138*138 mm)			
Electrical Interface	The back end reserved 3 M12*1.5 Gram head, line diameter 3~6.5 mm			
Power Supply	100～240VAC	18~36VDC	100～240VAC	18~36VDC
Power Consumption	About 12W			
Weight	About 800g			

Digital Infrared Turbidity Sensor

Features& Advantages

- Based on the infrared absorption scattered light method, use ISO7027 method to determine the turbidity continuously and accurately;
- Not affected by sample chromaticity;
- Stable wavelength, stable data;
- Simple installation and calibration;
- Protection grade IP68, can work continuously and stably under water for a long time;
- Self-diagnosis function, built-in humidity sensor and light source self-checker, effectively ensuring that the sensor issues maintenance prompts when necessary;
- Self-cleaning function can be selected according to the use environment to ensure the accuracy of the data.

Specification & Model

Model	OPTU850	OPTU851
Measuring Range	0.01~1000NTU	0.01~4000NTU
Light Source	850nm infrared light source	
Accuracy	Less than ±5% of the measured value, or ±0.1NTU, take the larger one	
Calibration	Sample calibration, slope calibration	
Flow Rate	≤2.5m/s，8.2ft/s	
Probe Pressure	4Bar	
Operating Environment	0~45℃	
Power Supply	12VDC	
Deepest underwater	40m	
Dimensions	Diameter 52mm * length 195mm	
Material	SUS316L+POM	
waterproof Level	IP68/NEMA6P	
Cable	10 meters (customized)	
Weight	700g (without cable)	

Digital Laser Turbidity Analyzer

The digital laser turbidity analyzer adopts 660nm laser light source to measure turbidity of water samples.

Application:

- Pure water
- Ultra-pure water
- Waterworks
- Secondary water supply project
- Swimming pool water testing

Digital Laser Turbidity Controller

Features & Advantages

- Compatible with all DRFN digital laser turbidity sensors;
- Separately have a list of controller and sensor settings for quick and detailed parameter setting;
- The working status of the sensor can be queried, including reading the serial number;
- Support a variety of installation methods;
- Time and historical data recording function;
- 3.2-inch large LCD screen;
- User-friendly Chinese and English language interface;
- Password can be set to prevent misoperation;
- 2 SPST multi-function and settable relays;
- Two 0/4~20mA active current loop outputs;
- RS485 interface, Modbus RTU communication protocol;
- IP66 waterproof level, sealed enclosure can isolate pollution and corrosive gas;
- OTA download technology as a smart configuration option for the instrument;

Specification & Model

Model	DUC2-LTU-H-A	DUC2-LTU-H-D	DUC2-LTU-S-A	DUC2-LTU-S-D
Software Version	DRFN TU Analysis software V1.0			
Sensor Input	Compatible with all DRFN's TU Digital Sensors			
Display Range	0.001NTU~4000NTU			
Resolution	0.001 NTU			
Relay Control	2 settable SPST relays with a maximum load of 3A/250VAC			
Analog Current Output	2 settable 0/4~20mA current outputs with a maximum load 1000Ω			
Communication Method	Two-wire RS485 interface; MODBUS RTU; support JSON text data format			
OTA	——	——	Default WIFI	Default WIFI
Display Screen	128*64 black-and-white graphic lattice LCD adjustable backlight mode adjustable display rate			
Configuration Information	Power off protection, parameters are retained indefinitely			
Time/Data Record	Year/month/day/hour/min/second, record 14000 historical data record interval can be set between 1~999 minutes			
Maintenance Records	Last 100 times			
Protection Level	IP66			
Operating Environment	0～60℃，RH<95% (no condensation)			
Storage Environment	-20～70℃，RH<55% (no condensation, precision instruments)			
Shell Material	Enhanced ABS			
Dimension	144*144*120 mm			
Mounting Method	Wall mounting, pipe clamping, panel installation (hole size 138*138 mm)			
Electrical Interface	The back end reserved 3 M12*1.5 Gram head, line diameter 3~6.5 mm			
Power supply	100～240VAC	18~36VDC	100～240VAC	18~36VDC
Power Consumption	About 12W			
Cleaning System	Max.24W			
Weight	About 800g			

Digital Infrared Turbidity Sensor

Features& Advantages

- Adopt 660nm laser light source, high resolution and fast response;
- Can be used in online transmitter, DTU, integrated system;
- Low sampling flow requirements, reducing the amount of waste liquid generated in the measurement;
- The turbidity flow cell can eliminate the interference of air bubbles to the measurement to the greatest extent;
- Optional window and automatic emptying system to reduce maintenance workload;
- Liquid level detection function can automatically determine whether the sample liquid level in the flow cell meets the measurement requirements;
- Stream-style sample track to prevent the sedimentation of suspended solids caused by low flow rates;
- RS485 digital interface, standard Modbus communication protocol, support access to standard industrial control system;
- Internal storage of calibration data, support offline calibration, plug and play on site.

Specification & Model

Model	OLTU600	OLTU601	OLTU602	OLTU603
Measuring Range	0.01~100NTU 0.1~50℃			
Light Source	660nm laser light source			
Display Accuracy	0.001~40NTU is ±2% of reading or ±0.015NTU take the larger one; 40~100NTU is ±5% of reading			
Operating Environment	0~45℃			
Flow Rate	100ml/min≤x≤500ml/min			
Calibration	Standard solution/water sample/zero point calibration			
Working Instructions	Power indicator	Power and status indication	OLED window	
Sample liquid Level	No judgment			Judge and prompt
Sample Emptying/Blowdown	Not equipped			Equipped
Sample Interface	Injection port: 1/4NPT, discharge port: 1/2NPT			
Main Material	Body: ABS+Nylon			
Dimensions	Length*Wide*Height: 140*117*214mm			
Net Weight	2Kg			
Waterproof Level	IP66			
Storage Temperature	-15~65℃			

Digital Suspended Solids/Sludge Concentration Analyzer

This digital controller can be used with a SS sensor to measure the concentration of suspended solids in water, or a MLSS sensor to measure the concentration of activated sludge in sewage.

Application:

- ◇ Wastewater treatment plant
- ◇ Waterworks
- ◇ Surface water
- ◇ Semiconductor
- ◇ Environmental water treatment
- ◇ Paper industry
- ◇ Mining
- ◇ Metallurgical Electronics

Digital SS/MLSS Controller

OPSS8

OPSS9

Features & Advantages

- Compatible with all DRFN digital suspended solids or sludge concentration sensors;
- Separately have a list of controller and sensor settings for quick and detailed parameter setting;
- The working status of the sensor can be queried, including reading the serial number;
- Support a variety of installation methods;
- Time and historical data recording function;
- 3.2-inch large LCD screen;
- User-friendly Chinese and English language interface;
- Password can be set to prevent misoperation;
- 2 SPST multi-function and settable relays;
- Two 0/4~20mA active current loop outputs;
- RS485 interface, Modbus RTU communication protocol;
- IP66 waterproof level, sealed enclosure can isolate pollution and corrosive gas;
- OTA download technology as a smart configuration option for the instrument;

Specification & Model

Model	DUC2-SS-H-A	DUC2-SS-H-D	DUC2-SS-S-A	DUC2-SS-S-D
Software Version	DRFN SS(sludge concentration) Analysis software V1.0			
Sensor Input	Compatible with all DRFN's SS(sludge concentration) Digital Sensors			
Display Range	0.01mg/L~100g/L			
Resolution	0.01mg/L			
Relay Control	2 settable SPST relays with a maximum load of 3A/250VAC			
Analog Current Output	2 settable 0/4~20mA current outputs with a maximum load of 1000Ω			
Communication Method	Two-wire RS485 interface MODBUS RTU support JSON text data format			
OTA	——	——	Default WIFI	Default WIFI
Display Screen	128*64 black-and-white graphic lattice LCD adjustable backlight mode adjustable display rate			
Configuration Information	Power off protection, parameters are retained indefinitely			
Time/Data Record	Year/month/day/hour/min/second, record 14000 historical data record interval can be set between 1~999 minutes			
Maintenance Records	Last 100 times			
Protection Level	IP66			
Operating Environment	0～60℃，RH<95% (no condensation)			
Storage Environment	-20～70℃，RH<55% RH(no condensation, precision instruments)			
Shell Material	Enhanced ABS			
Dimension	144*144*120 mm			
Mounting Method	Wall mounting, pipe clamping, panel installation (hole size 138*138 mm)			
Electrical Interface	The back end reserved 3 M12*1.5 Gram head, line diameter 3~6.5 mm			
Power Supply	100～240VAC	18~36VDC	100～240VAC	18~36VDC
Power Consumption	About 12W			
Weight	About 800g			

Digital Suspended Solids /Sludge Concentration Sensor

Features& Advantages

- Based on ISO7027 standard, using 90° infrared scattering method and 180° infrared incident method to measure. Compared with the scattering method, the incident method is more suitable for the test environment of high-concentration samples, and the detection accuracy is more guaranteed;
- Use near-infrared LED as the light source, even if there is color in the sample, it will not affect the measurement result;
- Electrically isolated communication and power interface, strong anti-interference ability
- Open up to 10 points of calibration, convenient for users to customize the data model, to meet the detection needs of various industries and different suspended substances;
- Protected measurement window design of OPSS8 to prevent accidental damage to the sensor;
- RS485 digital interface, standard Modbus communication protocol, support access to standard industrial control system;
- Internal storage of calibration data, support offline calibration, plug and play on site.

Specification & Model

Model	OPSS8	OPSS9
Measuring Principle	90° infrared scattering method	180° infrared incident method
Measuring Range	0~3000mg/L	0~20g/L
Resolution	1mg/L	
Light Source	850nm infrared light source	
Accuracy	Less than 5% of the measured value	
Calibration	Activated sludge calibration, diatomite calibration, linear calibration	
Probe Pressure	≤0.4Mpa	
Operating Environment	0~45℃	
Power Supply	12VDC power consumption 50mA	
Dimensions	Diameter 52mm * length 195mm	
Material	Stainless steel+POM	
waterproof Level	IP68	
Weight	700g (without cable)	

Digital COD Analyzer

The COD analyzer uses UV254 nanometer ultraviolet absorption method to measure, and the measurement process does not require consumables. In addition, another compensation light source can effectively eliminate the influence of turbidity and chromaticity, and achieve more stable and reliable measurement.

Application:

- ◇ surface water
- ◇ process water
- ◇ sewage treatment plant
- ◇ industrial wastewater
- ◇ drinking water
- ◇ river

Digital COD Controller

COD351

Features & Advantages

- Compatible with all DRFN digital COD sensors;
- Separately have a list of controller and sensor settings for quick and detailed parameter setting;
- The working status of the sensor can be queried, including reading the serial number;
- Support a variety of installation methods;
- Time and historical data recording function;
- 3.2-inch large LCD screen;
- User-friendly Chinese and English language interface;
- Password can be set to prevent misoperation;
- 2 SPST multi-function and settable relays;
- Two 0/4~20mA active current loop outputs;
- RS485 interface, Modbus RTU communication protocol;
- IP66 waterproof level, sealed enclosure can isolate pollution and corrosive gas;
- OTA download technology as a smart configuration option for the instrument.

Specification & Model

Model	DUC2-COD-H-A	DUC2-COD-H-D	DUC2-COD-S-A	DUC2-COD-S-D
Software Version	DRFN COD Analysis software V1.0			
Sensor Input	Compatible with all DRFN's COD Digital Sensors			
Display Range	0-1000mg/L			
Resolution	0.01 mg/L			
Relay Control	2 settable SPST relays with a maximum load of 3A/250VAC			
Analog Current Output	2 settable 0/4~20mA current outputs with a maximum load of 1000Ω			
Communication Method	Two-wire RS485 interface MODBUS RTU support JSON text data format			
OTA	——	——	Default WIFI	Default WIFI
Display Screen	128*64 black-and-white graphic lattice LCD adjustable backlight mode adjustable display rate			
Configuration Information	Power off protection, parameters are retained indefinitely			
Time/Data Record	Year/month/day/hour/min/second, record 14000 historical data record interval can be set between 1~999 minutes			
Maintenance Records	Last 100 times			
Protection Level	IP66			
Operating Environment	0～60℃，RH<95% (no condensation)			
Storage Environment	-20～70℃, RH<55% (no condensation, precision instruments)			
Shell Material	Enhanced ABS			
Dimension	144*144*120 mm			
Mounting Method	Wall mounting, pipe clamping, panel installation (hole size 138*138 mm)			
Electrical Interface	The back end reserved 3 M12*1.5 Gram head, line diameter 3~6.5 mm			
Power Supply	100～240VAC	18~36VDC	100～240VAC	18~36VDC
Power Consumption	About 7W			
Weight	About 800g			

Digital COD Sensor

Features& Advantages

- Use UV254 nano-ultraviolet absorption measurement method, require no consumable;
- Use two light sources, 254nm and 365nm UV reference light;
- Automatically eliminate the interference of suspended solids and compensate for the interference of turbidity;
- Can measure parameters such as COD, TOC, turbidity and temperature;
- Drop-in installation, no need to digest the tested sample, fast analysis speed, real-time response, no need to wait;
- RS485 digital interface, standard Modbus communication protocol, support access to standard industrial control system;
- Have excellent repeatability and stability, and is not easily affected by ambient light;
- integrated self-cleaning brush, small size and convenient to install, continuously monitor water quality online to prevent biological attachment and reduce the frequency of maintenance.

Specification & Model

Model	CODuv351
Measuring Principle	UV254 ultraviolet absorption method
Measuring Range(COD)	0.75~370mg/L
Resolution(COD)	0.01mg/L
Accuracy(COD)	±2% or ±2.5mg/L, take the larger one
Measuring Range(TOC)	0.3 ~150mg/L
Accuracy(TOC)	±2% or ±2.5mg/L, take the larger one
Resolution(TOC)	0.1mg/L
Measuring Range(TU)	0~300 NTU
Accuracy(TU)	3% or 0.2NTU, take the larger one
Resolution(TU)	0.1NTU
Operating Temperature	+5 ~ 45℃
Calibration	2-point calibration
Protection Grade	IP68
Working Pressure	1Bar
Response Time	T90 max. 10s
Flow Rate	< 3 m/s
Cleaning Method	Rubber scraper
Power	12V 15mA (normal), 200mA (max. when cleaning)
Output	RS485, Modbus RTU protocol
Dimension	Diameter 50mm, length 215mm
Cable Length	10m(custom)
Shell Material	POM and 316L

Digital NH4-N Analyzer

The NH4-N analyzer includes a controller and a digital sensor. The sensor uses the ion electrode method to measure ammonia nitrogen in the water.

Application:

- ◇ surface water
- ◇ groundwater
- ◇ sewage
- ◇ industrial wastewater
- ◇ effluent
- ◇ environmental water monitoring

Digital NH4-N Controller

NH350

Features & Advantages

- Compatible with all DRFN digital Ammonia sensors;
- Separately have a list of controller and sensor settings for quick and detailed parameter setting;
- The working status of the sensor can be queried, including reading the serial number;
- Support a variety of installation methods;
- Time and historical data recording function;
- 3.2-inch large LCD screen;
- User-friendly Chinese and English language interface;
- Password can be set to prevent misoperation;
- 2 SPST multi-function and settable relays;
- Two 0/4~20mA active current loop outputs;
- RS485 interface, Modbus RTU communication protocol;
- IP66 waterproof level, sealed enclosure can isolate pollution and corrosive gas;
- OTA download technology as a smart configuration option for the instrument.

Specification & Model

Model	DUC2-NH4-H-A	DUC2-NH4-H-D	DUC2-NH4-S-A	DUC2-NH4-S-D
Software Version	DRFN NH4-N Analysis software V1.0			
Sensor Input	Compatible with all DRFN's Ammonia Digital Sensors			
Display Range	0-100mg/L			
Resolution	0.01 mg/L			
Relay Control	2 settable SPST relays with a maximum load of 3A/250VAC			
Analog Current Output	2 settable 0/4~20mA current outputs with a maximum load of 1000Ω			
Communication Method	Two-wire RS485 interface MODBUS RTU support JSON text data format			
OTA	——	——	Default WIFI	Default WIFI
Display Screen	128*64 black-and-white graphic lattice LCD adjustable backlight mode adjustable display rate			
Configuration Information	Power off protection, parameters are retained indefinitely			
Time/Data Record	Year/month/day/hour/min/second, record 14000 historical data record interval can be set between 1~999 minutes			
Maintenance Records	Last 100 times			
Protection Level	IP66			
Operating Environment	0～60℃，RH<95% (no condensation)			
Storage Environment	-20～70℃, RH<55% (no condensation, precision instruments)			
Shell Material	Enhanced ABS			
Dimension	144*144*120 mm			
Mounting Method	Wall mounting, pipe clamping, panel installation (hole size 138*138 mm)			
Electrical Interface	The back end reserved 3 M12*1.5 Gram head, line diameter 3~6.5 mm			
Power Supply	100～240VAC	18~36VDC	100～240VAC	18~36VDC
Power Consumption	About 7W			
Weight	About 800g			

Digital NH4-N Sensor

Features& Advantages

- Use ion electrode measurement method;
- Integrate ammonium ion, pH and reference electrode, temperature electrode, potassium ion (optional);
- Realize online real-time monitoring, without adding any reagents during the detection process, and no secondary pollution;
- Automatically compensates for potassium ions (optional), pH and temperature in the water body;
- Integrated measuring tube structure, small size, convenient operation, fast detection speed, suitable for rapid, frequent and continuous measurement in the field;
- RS485 digital interface, standard Modbus communication protocol, support access to standard industrial control system;
- Have excellent repeatability and stability, and is not easily affected by ambient light;
- With self-cleaning brush to prevent biological attachment and reduce the frequency of maintenance.

Specification & Model

Model	NH350
Measuring Range(NH4-N)	NH4-N(0.01~100)mg/L
Electrode type	Ammonium ion electrode
Accuracy(NH4-N)	Less than 10% of the measured value or ±0.1mg/L, take the larger
Resolution(NH4-N)	0.01mg/L
Measuring Range(pH)	0~14pH
Accuracy(pH)	±0.1pH
Resolution(pH)	0.01
Disturbance	K+: 0.1~1000mg/L
Temperature Range	0 ~ 50℃
Accuracy(TEMP)	0.1℃
Response Time	Reach 90% of the measured value within 180s
Protection Grade	IP68
Deepest Depth	10 meters underwater
Sensor Interface	Support RS-485, MODBUS protocol
Assembly	Investment
Power Information	DC9~24 VDC±10%, current<50mA
Probe Cable Length	Default 10m(custom)
Shell Material	POM

Analog Conductivity Analyzer

Daruifuno's conductivity controller is matched with an analog conductivity sensor to calculate the conductivity of the solution by detecting the intensity of the current in the solution. At the same time, the instrument provides high-precision temperature measurement and compensation functions. In addition, the controller can also provide parameters such as resistivity, TDS, salinity and other related conductivity.

Application:

- ◇ Pure water ultra pure water
- ◇ drinking water
- ◇ Waste water
- ◇ Food and beverage industry
- ◇ chemical process
- ◇ Industrial water supply

Analog Conductivity Controller

AEC1-C2

AEC2-H3

Features& Advantages

- 3.2-inch large LCD screen;
- User-friendly Chinese and English language interface;
- Password can be set to prevent misoperation;
- 2 SPST multi-function and settable relays;
- Two 0/4~20mA active current loop outputs;
- RS485 interface, Modbus RTU communication protocol;
- Temperature detection and compensation function;
- Shortcut button of AEC1 helps you perform daily maintenance quickly;
- IP66 waterproof level, sealed enclosure can isolate pollution and corrosive gas;
- Two dimensions, can meet a variety of installation methods, and provide the necessary installation accessories at the same time.

Specification & Model

Model		AEC1-C2A	AEC1-C2D	AEC2-H3A	AEC2-H3D
Software Version		DRFN EC Analysis software V1.0			
Display Range	EC	0.00~10.00 mS/cm (Full range automatic switching)		0.00~200.00 mS/cm (Full range automatic switching)	
	Resistivity	0.01Ω.cm~18MΩ.cm			
	TDS	0.000mg/L~500g/L			
	Salinity	(0.00~10.0) %			
Display Range(Temp)		-10～150℃ /14~302℉			
Resolution	EC	0.01μS /cm			
	Resistivity	0.01Ω.cm			
	TDS	0.001mg/L			
	Salinity	0.1℃/ 0.1℉			
Accuracy		0.1% of the measuring range			
Stability		0.05% of the measuring range every 24 hours, no accumulation			
Repeatability		0.1% better than the measuring range			
Temperature Compensation		Automatic or manual(NTC10K or PT1000)			
Relay Output		Two SPST relays, maximum load 3A/250VAC			
Communication		RS485 Modbus RTU			
Signal Output		Two 0/4~20mA current outputs maximum load 1000Ω			
Sensor Diagnosis		Image display			
Time history/data record		——		Year/month/day/hour/min/second record 14000 historical data set interval between 1~999mins	
Maintenance records		——		Last 100 times	
Configuration		Power failure protection, indefinite retention of parameters			
Language		Chinese and English			
Display		128*64 3.2-inch large graphic dot matrix LCD			
Protection Grade		IP66			
Enclosure Material		Enhanced ABS			
Power Supply		AC: 100~240V	DC:18~36V	AC: 100~240V	DC:18~36V
Dimension		100*100*120mm		144*144*120mm	
Hole Size		92*92mm		138*138mm	
Operating Temperature		0～60℃, RH<95%, non-condensing			
Storage Temperature		-20～70℃, RH<55%, non-condensing			
Installation Method		Panel		Wall mount, pipe clamping, panel	
Weight		500g		800g	
Power Consumption		3W		5W	

Analog Conductivity Sensors

Features& Advantages

- Graphite 2-pole conductivity electrode for ASC100/200, 4-pole conductivity electrode, Ti metal detection head for ASC400, good electrical and thermal conductivity, and good chemical stability at room temperature;
- Plastic case electrode, solid structure, both ends have mounting threads, easy to install;
- Temperature compensation is optional: PT1000 or NTC10K;
- The electrode is equipped with a protective cover with its own cleaning interface, it can be quickly connected to the automatic cleaning system.

Specification & Model

Model	ASC100	ASC200	ASC400
Measuring Principle	Graphite 2 electrode		4-pole conductivity electrode
K Constant	K=1±15%		K=0.5±15%
Measuring Range	0~20000μS/cm		0~200mS/cm
TEMP Compensation	——	PT1000/NTC10K	
Working Temperature	0~60℃		0~80℃
Working Pressure	4 Bar		6Bar
Packaging Materials	epoxy	ABS, PPS(customized)	ABS, PPS(customized)
Dimensions	Diameter12mm length 120mm	Diameter 35mm length 260mm	
Installation Method	——	1"NPT pipe thread	

Features& Advantages

- 2-pole conductivity electrode, 304 stainless steel electrode head, good electrical and thermal conductivity, high temperature resistance, and good chemical stability.
- Solid structure, both ends have mounting threads, easy to install;
- The electrode is divided into 2 basic models according to the packaging method of the temperature unit PT1000 or NTC10K;
- The electrode is equipped with a protective cover with its own cleaning interface, and the user can quickly access the automatic cleaning system.

Specification & Model

Model	ASCK1	ASCK01	ASCK001
Measuring Principle	2-pole conductivity sensor		
K Constant	K=1±15%	K=0.1±15%	K=0.01±15%
Measuring Range	1~2000μS/cm	0.1~200μS/cm	0.01~20μS/cm
TEMP Compensation	PT1000/NTC10K		
Working Temperature	0~100℃		
Working Pressure	6Bar		
Electrode Materials	304 stainless steel or Ti (customized)		
Installation Method	1/2"NPT	1/2"NPT or 3/4"NPT	

Dual Channel PH/ORP Analyzer

Daruifuno's dual-channel analyzer can be connected to PH and ORP sensors to measure the PH, ORP and temperature in the water, and at the same time evaluate the disinfection capacity of the water body, calculate the corresponding **residual chlorine value**, and display the four parameters on the screen.

Application:

◇ Swimming pool ◇ water park ◇ Ultrafiltration ◇ Recycled water

Dual Channel PH/ORP Controller

Features & Advantages

- Compatible with all DRFN digital PH and ORP sensors;
- Have a variety of curve models to evaluate the disinfection ability in the water body;
- Abundant output, meeting PH/ORP detection and dosing control at the same time;
- Support a variety of installation methods;
- Time and historical data recording function;
- 3.2-inch large LCD screen;
- User-friendly Chinese and English language interface;
- Password can be set to prevent misoperation;
- 2 SPST multi-function and settable relays;
- Two 0/4~20mA active current loop outputs;
- RS485 interface, Modbus RTU communication protocol;
- IP66 waterproof level, sealed enclosure can isolate pollution and corrosive gas;
- Widely used in environments that need to quickly evaluate the residual chlorine value in water.

Specification & Model

Model		PD1000-A	PD1000-D
Software Version		DRFN Multi-parameter analysis softwareV1.0	
Simultaneous input of 2 electrodes	pH	Glass pH sensor	
	ORP	Redox potential sensors (platinum/gold sensors)	
	TEMP	PT1000 or NTC10K	
Measurement Range	pH	-2～16pH	
	ORP	±2000mV	
	TEMP	-10～150℃ /14~302℉	
Resolution	pH	0.01pH	
	ORP	1mV	
	TEMP	0.1℃/ 0.1℉	
Instrument Performance	Accuracy	0.1% of measure range（or PH：±0.02pH /ORP：±2mV）	
	Stability	0.05% of the measure range every 24 hours, no accumulation	
	Repeatability	Better than 0.1% of the measurement range	
Sensor Self-diagnosis		Screen image with a short buzzer alert	
Relay Control		2 settable SPST relays, max. Load 3A/250VAC	
Analog current Output		2 settable 0/4~20mA current loop outputs, max load 1000Ω	
Communication Method		RS485 interface, protocol: MODBUS RTU; support JSON text data format	
Display Screen		3.2-inch graphic dot matrix LCD display adjustable backlight mode and adjustable display rate	
Configuration Information		Power failure protection with indefinite parameter retention	
Time / Data Logging		Year/month/day/hour/minute/second 14000 historical data can be recorded the recording interval can be set between 1~999 minutes	
Maintenance Records		Last 100 times	
Protection Level		IP66	
Operating Environment		0～60℃，RH<95%(no condensation)	
Storage Environment		-20～70℃，RH<55% (no condensation)	
Material		Enhanced ABS	
Dimension		144*144*120mm	
Installation Method		Wall mounting, pipe clamping, panel (opening size 138*138mm)	
Electrical Interface		The back end reserved 3 M12*1.5 Glenn heads, 3~6.5mm over wire diameter	
Power Supply		100~240VAC	18~36VDC
Power Consumption		About7W	
Weight		About 800g	

Analog Free chlorine Analyzer

Application areas:

Water Treatment Monitoring:Domestic Water Swimming Pool Environmental Wastewater Discharge Monitoring

Industrial process monitoring: Circulating water, cooling water, aquaculture, papermaking, food, medicine, etc.

Analog Free chlorine Controller

Features&Advantages

- Compatible with all DRFN sterilization film method amperometric current sensors.
- Supports variety of installation methods and can be applied to more different installation environments. The enclosure protection level is IP66.
- It has clock and historical data recording functions to meet higher data management requirements.
- Rich output, while satisfying monitoring, control and data remote transmission.
- The standard configuration is 2 SPST relays that can be set. The setting objects include: alarms for the high and low values of the measurement parameters, and can also be set to control the cleaning cycle of the sensor, and can also be set to pairs in harsh environments. The warning of the working environment temperature of the instrument itself, as an auxiliary means of hazard protection, the maximum load of the relay is 3A/250VAC.
- The standard configuration is 2 channels of configurable 0/4~20mA active current loop output, each current output allows the user to specify what measurement value it represents. At the same time, each output can define the range of output values corresponding to the maximum and minimum current values by itself, whether it is forward or reverse, it is possible. In long-distance output, current calibration can be used to ensure the output accuracy. The data accuracy of the current is 0.00025 (16 bits), and the maximum load is 1000 ohms.
- The communication standard is equipped with a two-wire RS485 interface, communication protocol: MODBUS RTU. Support JSON (JavaScript Object Notation) text data format
- All user-entered configurations are retained indefinitely, and data will not be lost even without power. The output and control configuration of the instrument is additionally recorded in a configuration list for easy user documentation and verification.
- Configure OTA download technology (Over-the-Air Technology), as an intelligent configuration option of the instrument, OTA uses WIFI; GSM; CDMA and other wireless technology connections to remotely upgrade software for customers, diagnose faults, and assist in instrument parameter configuration This work not only reduces the workload of instrument on-site service, but also minimizes the time for users to wait for service.

- The display uses a 128*64 black and white graphic dot matrix screen, and the display backlight provides constant light and energy-saving mode options. The languages that the system can display include at least Chinese and English. Users can choose whether the displayed data responds in a timely manner or responds smoothly by adjusting the display rate according to their observation habits.
- The menu password can be set, which is convenient for hierarchical management;
- Provide AC and DC power supply modes, both of which are wide-voltage power supply;

Model		ADS2-CL3A	ADS2-CL3D	ADS2-CL4A	ADS2-CL4D
Software Version		DRFN Free Chlorine Analysis software V1.0			
Sensor Input		Compatible with all DRFN's Free Chlorine Analog Sensors			
Measurement sensor		Coated Ampere Electrode			
Display range		0.00-200.00mg/L			
Resolution		0.001 mg/L			
Instrument performance	Accuracy	Better than 0.15% of measuring range			
	Stability	0.05% of measurement range every 24 hours, no accumulation			
	Repeatability	Better than 0.1% of the measuring range.			
Sensor self-diagnosis		With sensor diagnostic capability, screen image buzzer prompt			
Relay control		Two settable SPST relays, the maximum load of the relay is 3A/250VAC.			
Analog current output		Two settable0/4~20mAcurrentoutputs ,maxload1000Ω			
Communication method		Two-wire RS485 interface, communication protocol: MODBUS RTU; support JSON text data format			
OTA		——	——	Default WIFI	Default WIFI
Display screen		128*64 black and white graphic dot matrix LCD display, adjustable backlight mode, adjustable display rate.			
Configuration information		Power-off protection, parameter retention indefinitely			
Time History/Data Record		Year/month/day/hour/minute/second, 14,000 historical data can be recorded, and the recording interval can be set between 1 and 999 minutes.			
Maintenance records		Last 100 times			
Protection class		IP66			
Operating environment		0～60℃，RH<95%(no condensation)			
Storage environment		-20～70℃,RH<55% (no condensation ,precision instruments)			
Shell Material		Shell material: Reinforced ABS; instrument dimensions 144*144*120mm			
Mounting Method		Wall-mounted installation, pipe clamp installation, panel installation (opening size 138*138mm)			
Electrical interface		The back end reserved 3M12*1.5 Gram head,line diameter 3~6.5mm			
Power supply		AC100～240VAC	DC 18~36VDC	AC 100～240VAC	DC18~36VDC
Power consumption		About10W			
Instrument weight		About 800g			

Digital Free chlorine Analyzer

Application areas:

Water Treatment Monitoring:Domestic Water Swimming Pool Environmental Wastewater Discharge Monitoring

Industrial process monitoring: Circulating water, cooling water, aquaculture, papermaking, food, medicine, etc.

Digital Free chlorine Controller

Features&Advantages

- A universal controller specially designed for DRFN digital series Free Chlorine sensors, compatible with all DRFN digital Free Chlorine sensors.
- The connected sensor uploads the detected data in a special encrypted communication mode to ensure that the DUC controller can collect high-precision data more stably.
- The working status of the sensor can be queried, including reading the serial number of the sensor.
- There are controller and sensor setting lists respectively, which can quickly and detailedly grasp the set configuration parameters list.
- Support a variety of installation methods, can be applied to more different installation environments, the enclosure protection level is IP66.
- It has clock and historical data recording functions to meet higher data management requirements.
- Rich output, while satisfying monitoring, control, data remote transmission,
- With 2 settable SPST multi-function relays;
- With 2 high-precision 0/4~20mA current output;
- With a two-wire RS485 interface;
- Configure OTA download technology (Over-the-Air Technology), as an intelligent configuration option of the instrument, OTA uses WIFI; GSM; CDMA and other wireless technology connections to remotely upgrade software for customers, diagnose faults, and assist in instrument parameter configuration. This work not only reduces the workload of instrument on-site service, but also minimizes the time for users to wait for service.
- 128*64 large-screen graphic dot matrix LCD screen, Chinese and English display, rich in content;
- The menu password can be set, which is convenient for hierarchical management;
- Provide AC and DC power supply modes, both of which are wide-voltage power supply;

Model	DDS2-CL3A	DDS2-CL3D	DDS2-CL4A	DDS2-CL4D
Software Version	DRFN Free Chlorine Analysis software V1.0			
Sensor Input	Compatible with all DRFN's Free Chlorine Digital Sensors			
Display range	0.00-100.00mg/L			
Resolution	0.01 mg/L			
Relay control	Two settable SPST relays, the maximum load of the relay is 3A/250VAC.			
Analog current output	Two settable0/4~20mAcurrentoutputs ,maxload1000Ω			
Communication method	Two-wire RS485 interface, communication protocol: MODBUS RTU; Support JSON text data format			
OTA	——	——	Default WIFI	Default WIFI
Display screen	128*64 black and white graphic dot matrix LCD display, adjustable backlight mode, adjustable display rate.			
Configuration information	Power-off protection, parameter retention indefinitely			
Time History/Data Record	Year/month/day/hour/minute/second, 14,000 historical data can be recorded, and the recording interval can be set between 1 and 999 minutes.			
Maintenance records	Last 100 times			
Protection class	IP66			
Operating environment	0～60℃，RH<95%(no condensation)			
Storage environment	-20～70℃,RH<55% (no condensation ,precision instruments)			
Shell Material	Shell material: Reinforced ABS; instrument dimensions 144*144*120mm			
Mounting Method	Wall-mounted installation, pipe clamp installation, panel installation (opening size 138*138mm)			
Electrical interface	The back end reserved 3M12*1.5 Gram head,line diameter 3~6.5mm			
Power supply	AC100～240VAC	DC 18~36VDC	AC 100～240VAC	DC18~36VDC
Power consumption	About 7W			
Instrument weight	About 800g			

MCC100/MCC200

Features & Advantages

Customized multi-parameter analyzer

Daruifuno MCC100 analyzer has 4 digital channels: PH, dissolved oxygen, conductivity and turbidity. It can measure up to 5 parameters(temperature).

MCC200 can be customized, the parameters including but not limited to: PH, ORP, conductivity, salinity, TDS, dissolved oxygen, turbidity, MLSS, transparency, COD, TOC, residual chlorine, ammonia nitrogen, Doppler, etc.

Different measurement range

The MCC100/200 controller can be connected with different electrodes to realize the measurement. The measuring range is determined by different sensors.

Communication and control

The MCC100/200 analyzer has RS485 interface and the communication protocol is Modbus RTU. The controller has 2 SPST relays and two 0/4~20mA analog current outputs.

Various installation methods

The dimension of the controller is 144*144*120mm, support wall mount, pipe clamping, panel.

Model	MCC100	MCC200
Software Version	Daruifuno multi-parameter analysis software V1.0	
Detection Object	PH,Temp, conductivity, dissolved oxygen, turbidity	Including but not limited to: PH, ORP, conductivity, salinity, TDS, dissolved oxygen, turbidity, MLSS, transparency, COD, TOC, residual chlorine, ammonia nitrogen, Doppler, etc.
Communication Method	Two-wire RS485 interface communication protocol: MODBUS RTU	
OTA	Optional	
Screen	128*64 graphic dot matrix LCD screen adjustable backlight mode adjustable display rate	
Configuration Information	Power failure protection, indefinite retention of parameters	
Time/Data Logging	Accurate to the second, record 5000 historical data Recording interval can be set between 1 and 999 minutes	
Maintain Records	Last 100 times	
Protection Grade	IP66	
Operating Temperature	0～60℃, RH<95%RH	
Storage Temperature	-20～70℃，RH<55%RH	
Instrument Shell	Shell material: reinforced ABS	
Instrument Dimensions	144*144*120mm(opening hole size 138*138mm)	
Installation Method	Wall mount, pipe clamping, panel	
Electrical Interface	Three M12*1.5 Gellen heads are reserved at the back, with a wire diameter of 3~6.5mm	
Power	100~240VAC，50/60Hz	
Power Consumption	<25W	

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