

jensprima
Safety reliably produced



Product Catalogue

JENSPRIMA Head Office

JENSPRIMA INSTRUMENTS LIMITED

Address: Kensington High St Kensington W8 7DS London United Kingdom

Phone: +44-203-4681833 E-Mail: info@jensprima.com

JENSPRIMA China Sales & Service Center

JENSPRIMA INSTRUMENTS (SHANGHAI) CO., LTD.

Address: 2nd Floor, Block Area B, No.1 Building, No.618 Middle Chengliu Road

Jiading District, Shanghai, China

Phone: +86-21-69108153 E-Mail: chinainfo@jensprima.com

www.jensprima.com

The performance of the product is continuously upgraded and updated, and the actual delivery shall prevail.



TRUSTED MANUFACTURERS OF WATER QUALITY ANALYZER



Safety reliably produced.

Founded in the UK, Jensprima Instruments Limited is an innovative company focusing on water measurement. Since the company started, we have been committed to the research of optical analysis, sensor technology and measurement reagents. We can also provide customers with tailor-made solutions. As the expert in water hardness measurement, Jensprima has a long-standing reputation for reliable product quality and excellent customer service in pharmaceutical purified water and industrial boiler water testing. We also offer solutions for dosing control of precise flocculants.

Jensprima Instruments (Shanghai) Co., Ltd. was officially established in 2017. The company was initially responsible for the marketing, sales and after-sales service of JENSPRIMA products in the Asia-Pacific region, and then the assembly and testing of some products was introduced to Shanghai Jensprima. Our company has passed ISO9001 quality system certification and ISO4001 environmental management system certification.

Brand Advantages:

- More than 10,000 sets of analyzers installed worldwide.
- Save the investment for your water measuring instrument.
- Regular instruments are available from stock to save your precious time.
- Low-maintenance product design and standardized services can quickly solve your technical problems.

Measurement Parameters:

Total hardness, total alkalinity, Phenolphthalein alkalinity, streaming current, pH / ORP, temperature, electrical conductivity, resistivity, TDS, salinity, residual chlorine, chlorine dioxide, ozone, turbidity, MLSS, SS, ion concentration, total iron, Level, sludge interface and flow, etc.

Our vision: To be the reliable manufacturer of water quality instrument

Our mission: To innovate and provide more practical solutions to help companies to measure accurately and produce efficiently.

Philosophy: Focus on Reputation. Service with heart.



Shanghai Sales & Service Center



Anhui Manufacturing Center



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Online Water Hardness Analyzer

PACON 5000

PACON 5000 is a compact, easy-to-operate and high accuracy water quality analyzer for automatic on-line inspection of water quality residual hardness and quality control of water softening processes. This system controls the selectable limits based on the titration colorimetric principle, providing accurate measurement readings by extinction, and a variety of functions to ensure the reliability of real-time operation. Low maintenance and low reagent consumption, suitable for long time continuous operation, maintenance-free, especially suitable for the pharmaceutical purified water and industrial boiler water testing. Select the alkalinity reagent to measure total alkalinity.

Measurement parameters

Total hardness, Total alkalinity

Applications

- Process Water
- Boiler Water
- Drinking Water
- Water Treatment
- Cooling Water

Features

● Fully-automatic Measurement

Full-automatically measure the total water hardness with different ranges according to the selected reagent. The analysis process is more efficient than manual measurements and also more reliable than other indirect measurement methods, such as ion-selective electrode.

● Intelligent & Accurate

GB measurement method - titration colorimetric method, the instrument does not require calibration. The integrated measurement technique and the two-stage analysis process can identify external measurement effect, such as contamination of the cell, turbidity of the water sample and external light, and to eliminate these effects in the measurement.

● Automatic Cleaning

Each analysis will automatically perform Rinsing and Cleaning, ensuring measurement accuracy, repeatability and reduced on-site maintenance.

● LCD Display

Multi-language graphic backlit LCD display, showing measured values, reagent remaining, alarm values and relay status.

● Low Reagent Consumption

It is very easy to replace the reagent bottle, 500ml reagent can measure 5000-10000 times. Reagent is valid for 2 years.

● Optional Measurement Interval

Optional measurement interval: 5-360min. Can also control the start-up measurement of the instrument via an external switching signal.

● 0/4-20mA Output & RS485 Modbus

0/4-20mA, max. 750Ω.

● Compact design / ca.4Kg

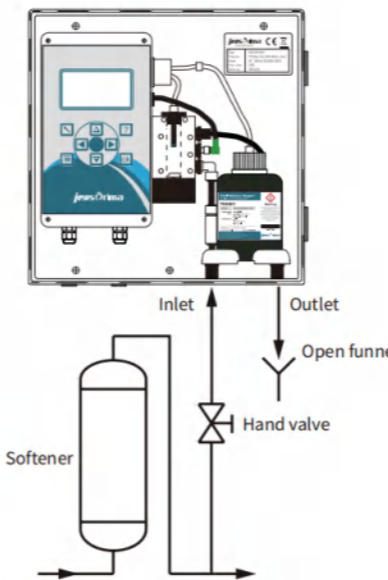
The dimension is only 300x300x200mm, can be directly linked to the wall or mounted on the bracket.

● SD Card Storage

2G data memory card, can be directly connected to the computer, to access to historical data and system failure information in excel format.

● Least Maintenance Workload

The measuring slot must be cleaned according to the set measuring interval or the measuring frequency. It is recommended to replace the spare parts every year. The spare parts including: peristaltic pump head, reagent connection tube and seal, Order No. 50-5000-10. No additional tools are required for maintenance and can be easily executed.



50-5000-10

Order Guide

Order No.	Description
33-5000-00	PACON 5000 Online Hardness Analyzer
33-5000-10	PACON 5000 Online Alkalinity Analyzer
50-5000-10	Spare Parts Kit Including pump head (including pump tube), all seals, stirrups, connection pipe of reagent bottle, recommend to exchange every year.
50-5000-20	LED light source, recommended to be replaced every two years

Technical parameter

Measurement method:	Titration method with colour change
Measurement range:	Total hardness: 0.21-534.0 ppm CaCO ₃ (see reagent label) Total alkalinity: 5.34-401.0 ppm CaCO ₃ (see reagent label) ca. 3 minutes depending on the hardness of the water
Measurement duration:	ca. 3 minutes depending on the hardness of the water
Measurement accuracy:	±5% of the upper value of the respective reagent
Repetition accuracy:	±2.5% of the upper value of the respective reagent
Reagent consumption:	approx. 0.05-0.5 ml/analysis, depending on the measured concentration
Expiry date of reagent:	2 years from the factory (<25°C, storage in darkness)
Water sample consumption:	approx. 1 L of water per analysis (at 2 bar pressure)
Supply Voltage:	85 - 265 VAC, 47-63Hz
Power consumption:	25VA (in operation) , 3.5VA (standby)
Protection class:	IP65
Display:	Multi-coloured and multi-lingual graphic display
Unit:	°dH, °f, ppm CaCO ₃ , mmol/l, °e
Outputs:	1, 4 sets of programmable relay outputs (max. 250V, 4A) 2, 1 group of 0 / 4 - 20 mA signals, max. 750 Ω 3, RS485 Modbus RTU communication
Inputs:	1, IN1 input (start analysis / flow control switch / water meter) 2, IN2 input (reset device)
Analysis cycle:	Measuring interval(5 - 360min) / External signal / Flow signal
Flush time:	Configurable (15~1800s)
Requirements of the water quality:	clear, colourless, no solid particles, without gas bubbles; pH: 4 - 10.5 ; Iron: < 3 ppm ; Copper: < 0.2 ppm ; Al: < 0.1 ppm ; Mn: < 0.2 ppm;
Temperature:	Environmental temperature: 5°C - 45°C, Measuring water temp.: 5°C-40°C
Humidity:	20-90%RH, Indoor installation
Water inlet pressure:	ca. 0.5 - 5 bar (max.) (recommended 1-2bar)
Inlet / Outlet connect:	6mm hose
Dimensions/Weight:	300x300x200mm(WxHxD), ca.4Kg
Installation:	Wall mounting in closed rooms

Online Water Hardness Analyzer

PACON 4800

PACON 5000 is a compact, easy-to-operate and high accuracy water quality analyzer for automatic on-line inspection of water quality residual hardness and quality control of water softening processes. This system controls the selectable limits based on the titration colorimetric principle, providing accurate measurement readings by extinction, and a variety of functions to ensure the reliability of real-time operation. Low maintenance and low reagent consumption, suitable for long time continuous operation, maintenance-free, especially suitable for the pharmaceutical purified water and industrial boiler water testing. Select the alkalinity reagent to measure total alkalinity.



Measurement parameters

Total hardness, Total alkalinity

Applications

Boiler Water, Drinking Water, Water Treatment, Cooling Water

Features

- Economy model, High cost performance
- Automatic calibration, automatic diagnosis and automatic measurement
- Compact design, 300x300x200mm/ca.4Kg
- Low maintenance and low reagent consumption
- Multi-language graphic backlit LCD display
- Continuous measurement or interval measurement (5-360min)
- 2 x programmable contact outputs
- External signal input to control measurement, can be linked with external devices
- SD card data storage (historical data, fault log), 0/4-20mA output

Technical parameter

Measurement method: Titration method with colour change
 Measurement range: Total hardness: 0.21-534.0 ppm CaCO₃ (see reagent label)
 Total alkalinity: 5.34-401.0 ppm CaCO₃ (see reagent label)
 Measurement duration: ca. 3 minutes depending on the hardness of the water
 Measurement accuracy: ±5% of the upper value of the respective reagent
 Repetition accuracy: ±2.5% of the upper value of the respective reagent
 Reagent consumption: approx. 0.05-0.5 ml/analysis, depending on the measured concentration
 Expiry date of reagent: 2 years from the factory (<25°C, storage in darkness)
 Water sample consumption: approx. 1 L of water per analysis (at 2 bar pressure)
 Supply Voltage: 85 - 265 VAC, 47-63Hz
 Power consumption: 25VA (in operation) , 3.5VA (standby)
 Protection class: IP65
 Display: Multi-coloured and multi-lingual graphic display
 Unit: °dH, °f, ppm CaCO₃, mmol/l, °e
 Outputs: 1, 4 sets of programmable relay outputs (max. 250V, 4A)
 2, 1 group of 0/4 - 20 mA signals, max. 750 Ω
 Inputs: 1, IN1 input (start analysis / flow control switch / water meter)
 Data storage: 100 sets of historical curves, directly accessible on the instrument
 4G SD card storage, Historical data and fault information can be imported
 Analysis cycle: Measuring interval(5 - 360min) / External signal / Flow signal
 Flush time: Configurable (15-1800s)
 Requirements of the water quality: clear, colourless, no solid particles, without gas bubbles;
 pH: 4 - 10.5; Iron: < 3 ppm; Copper: < 0.2 ppm;
 Al: < 0.1 ppm; Mn: < 0.2 ppm;
 Temperature: Environmental temperature: 5°C - 45°C, Measuring water temp: 5°C-40°C
 Humidity: 20-90%RH, Indoor installation
 Water inlet pressure: ca. 0.5 - 5 bar (max.) (recommended 1 -2bar)
 Inlet / Outlet connect: 6mm hose
 Dimensions/Weight: 300x300x200mm(WxHxD), ca.4Kg
 Installation: Wall mounting in closed rooms

Order Guide

Order No.	Description
33-4800-00	PACON 4800 Online Hardness Analyzer
33-4800-10	PACON 4800 Online Alkalinity Analyzer
50-5000-10	Spare Parts Kit Including pump head (including pump tube), all seals, stirrups, connection pipe of reagent bottle, recommend to exchange every year.
50-5000-20	LED light source, recommended to be replaced every two years

Online Water Hardness Analyzer

PACON 4200

The PACON 4200 on-line hardness analyzer is a compact, easy-to-operate and accurate measurement based on the titrimetric colorimetric principle, making it the entry-level choice for water softening systems and boiler room water quality monitoring.



Measurement parameters

Total hardness

Applications

Boiler Water, Water Treatment, Cooling Water

Features

- Automatic measurement and automatic cleaning
- Graphic backlit LCD display, English and Chinese menus
- External signal input to control the measurement for external starting or stopping the analysis
- 4-20mA output (Optional RS485 communication module)
- 2 relay outputs
- Display unit ppm CaCO₃
- Continuous or interval measurement (5-30min)
- Optional SD card data storage (historical data, fault logging)
- Least maintenance workload

Hardness reagent (500ml/bottle)

Order No.	Item no.	ppm CaCO ₃
50-4200-01	TH4201	0.20 - 2.00
50-4200-02	TH4202	0.50 - 5.00
50-4200-03	TH4203	1.50 - 15.0
50-4200-04	TH4204	5.0 - 50.0
50-4200-05	TH4205	15.0 - 150.0
50-4200-06	TH4206	25.0 - 250
50-4200-07	TH4207	50.0 - 500

Order Guide

Order No.	Description
33-4200-00	PACON 4200 Online Hardness Analyzer
33-0485-01	RS485 communication module
33-4200-20	220VAC power adapter, cable length 1.5m
50-4200-10	Spare parts bag of Hardness Including pump head (including pump tube), all seals, stirrups, connection pipe of reagent bottle, Recommended to be replaced once every two years.

Technical parameters

Measuring range: 0.20 - 500ppm CaCO₃ (see reagent types)
 Measuring time: approx. 3 minutes, depending on water hardness and set rinsing time
 Accuracy: ±5% of the upper limit value of the selected reagent
 Repeatability: ±5% of the upper limit value of the selected reagent
 Analysis cycle: continuous measurement / interval measurement (5-30min)
 external start signal
 Rinse time: 5 - 1800S (default 120s)
 Water consumption: Approx. 1 - 2L/analysis depending on inlet pressure and set rinse time
 Display: Backlit LCD displaying graphic and numerical values
 Unit: ppm CaCO₃
 Current output: 0/4 - 20mA, Max. 750Ω
 Relay outputs: 2 passive relay outputs NC, 30VDC 1A
 Inputs: External switching signal to initiate analysis/flow sensor

Basic parameters

Measuring principle: titration colorimetric method
 Ambient temperature: 5 - 45°C
 Temperature of water sample: 5 - 40°C
 Water pressure: 0.5 - 5bar, recommended 1-2bar
 Water quality requirements: colorless, no suspended solids, no bubbles pH 4 - 10.5,
 iron: <3ppm, copper: <0.1ppm, manganese: <0.2ppm
 Inlet/outlet connection: 1/4" OD hose
 Humidity: 20 - 90% RH, indoor Wall installation
 Power supply: 24VDC, 25W (Optional 220VAC power adapter available)
 Dimensions/Weight: 250x360x110mm, ca. 2.5Kg (including outer case housing)
 Protection rating: IP54

Multi-Channel Online Hardness/Alkalinity Analyzer

Flumsys 20HA

The Flumsys 20HA multi-channel controller with PACON 5000 online hardness/alkalinity analyser can automatically monitor 2-6 channels of water samples online and output 2-6 channels of 4-20mA, greatly reducing the customer's purchasing costs.



Measurement parameters

Total Hardness: 0.21 - 534 ppm CaCO₃
 Total Alkalinity: 5.34 - 401 ppm CaCO₃

Applications

Boiler feed water and furnace water, softened water, circulating water, process water

Features

- Titrimetric principle for accurate and stable measurements
- Simultaneous display of 2 to 6 channels of measured values
- Automatic linkage with PACON 5000, automatic cleaning, automatic measurement
- Programmable measurement interval (5-360min) and flush time
- Automatic system fault alarm and insufficient water inlet pressure alarm
- Free to open/dose channels to avoid disruption of other channels due to channel maintenance or shutdown
- 2-6 isolated 4-20mA outputs (depending on the channel selected)
- RS485 Modbus RTU communication
- Data storage function with support for U-disk export (Excel)



Technical parameter

Measurement method: Titration colorimetry
 Measurement range: Total hardness : 0.21-534.0 ppm CaCO₃ (see reagent type)
 Total alkalinity: 5.34-401.0 ppm CaCO₃ (see reagent type)
 Measurement time: approx. 3 minutes, depending on the hardness/alkalinity concentration of the water
 Accuracy: +/- 5% of the upper limit of the selected reagent
 Repeatability: +/- 5% of the upper limit value of the selected reagent
 Reagent consumption: approx. 0.05 - 0.5 ml/analysis, depending on the measured concentration
 Expiry date of reagent: 2 years from the factory (<25°C, storage in darkness)
 Water sample consumption: approx. 1 L of water per analysis (at 2 bar pressure)
 Power supply: 220VAC, 50/60Hz
 Protection class: IP65
 Display: 7" backlit touch screen display
 Units available: ppm CaCO₃, mmol/l
 Output: 2-6 sets of 4-20mA signals/RS485 Modbus RTU communication
 Measurement interval: 5-360min settable, default 10min
 Rinse time: settable (15-1800s)
 Water quality requirements: colourless, no suspended matter, no air bubbles; pH: 4 - 10; iron: < 3 ppm; copper: < 0.2 ppm; aluminium: < 0.1 ppm; manganese: < 0.2 ppm
 Temperature: ambient: 5°C - 45°C, water samples: 5°C - 40°C
 Humidity: 20 - 90% RH; indoor installation
 Pressure: ca. 0.5 - 5 bar (max.) (1 - 2 bar recommended)
 Water inlet/outlet connection: 6 mm OD hose
 Dimensions/weight: 380x750x180mm (WxHxD)
 Mounting: Wall mounted

Order Guide

Order No.	Description
33-5520-10	Flumsys 20HA multi-channel online hardness/alkalinity analyser

Dual Channel Online Hardness/Alkalinity Analyzer

innoCon 6800H

The Flumsys 20HA multi-channel controller with PACON 5000 online hardness/alkalinity analyser can automatically monitor 2-6 channels of water samples online and output 2-6 channels of 4-20mA, greatly reducing the customer's purchasing costs.



Measurement parameters

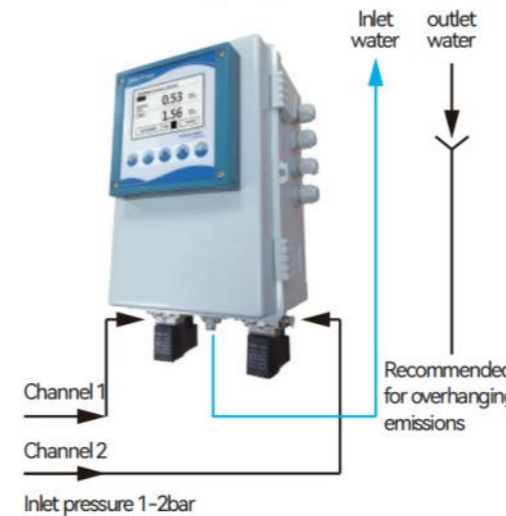
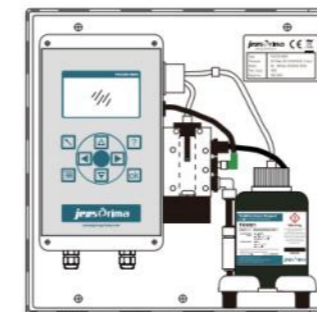
Total Hardness: 0.21 - 534 ppm CaCO₃
 Total Alkalinity: 5.34 - 401 ppm CaCO₃

Applications

Boiler feed and furnace water, drinking water, circulating water, process water

Features

- Titrimetric principle for accurate and stable measurements
- Simultaneous display of the measured values of 2 channels
- Automatic linkage with PACON 5000/4800, automatic cleaning, automatic measurement Programmable measurement interval (10-360 min) and rinse time
- Automatic suspension of measurements in the event of a system failure
- 2 isolated 4-20mA outputs
- 2 Relay outputs
- RS485 Modbus RTU Communication



Technical parameter

Measurement method: Titration colorimetric method
 Measuring range: Total hardness: 0.21-534.0 ppm CaCO₃ (see reagent type)
 Total alkalinity: 5.34 - 401.0 ppm CaCO₃ (see reagent type)
 Measurement time: approx. 3 minutes, depending on the hardness/alkalinity concentration of the water
 Reagent expiry: +/- 5% of the upper limit value of the selected reagent consumption, approx. 0.05-0.5 ml/analysis, depending on the measured concentration
 Consumption of water samples: 2 years ex works (<25°C, shaded storage)
 Power supply: 220VAC, 50/60Hz
 Protection class: IP65
 Optional units: ppm CaCO₃, mmol/l
 Outputs: 1. 2 Hi/Lo relay outputs
 2. 2 sets of 4 - 20 mA signals, max. 500 Ω
 3. RS485 Modbus RTU communication
 Measurement interval: 10~360min settable, default 10min
 Rinse time: settable (15~1800s)
 Water quality requirements: colourless, no suspended matter, no air bubbles; pH: 4 - 10; iron: < 3 ppm; copper: < 0.2 ppm; aluminium: < 0.1 ppm; manganese: < 0.2 ppm
 Temperature: ambient: 5°C - 45°C, water samples: 5°C - 40°C
 Pressure: ca. 0.5 - 5 bar (max.) (1 - 2 bar recommended)
 Water inlet/outlet connection: 6 mm outer diameter hose
 Dimensions/weight: Dual channel controller: 350x200x200mm (WxHxD), approx. 4Kg
 300x300x200mm (WxHxD), approx. 4Kg
 Mounting: Wall mounted

Order Guide

Order No.	Description
33-6801-80	innoCon 6800H Dual channel online hardness/alkalinity Analyzer

Hardness Reagent TH

Suitable for

- PACON 5000
- PACON 4800
- PACON 4600
- PACON 4500 (Discontinued)



Alkalinity Reagent TC

Suitable for

- PACON 5000
- PACON 4800
- PACON 4600
- PACON 4500 (Discontinued)



The PACON 5000/4800/4600 analyser must use the matching reagents produced by JENSPRIMA to measure different hardness/alkalinity ranges by selecting different types of reagents.

Hardness reagent types and measuring ranges

Order No.	Model	°dH	°f	ppm CaCO ₃	mmol/L
50-5000-01	TH5000	0.012-0.12	0.021-0.214	0.21-2.14	0.002-0.021
50-5001-01	TH5001	0.03-0.3	0.053-0.534	0.53-5.34	0.005-0.053
50-5003-01	TH5003	0.09-0.9	0.160-1.602	1.60-16.0	0.016-0.160
50-5010-01	TH5010	0.3-3.0	0.534-5.340	5.34-53.4	0.053-0.534
50-5030-01	TH5030	0.9-9.0	1.602-16.02	16.0-160.2	0.160-1.602
50-5050-01	TH5050	1.5-15	2.670-26.70	26.7-267.0	0.267-2.670
50-5100-01	TH5100	3.0-30	5.340-53.40	53.4-534.0	0.534-5.340

Alkalinity reagent types and measuring ranges

Order No.	Model	°dH	°f	ppm CaCO ₃	mmol/L
50-5510-01	TC5010	0.3-7.5	0.021-0.214	5.34-134	0.107-2.68
50-5515-01	TC5015	0.45-11.5	0.053-0.534	8.01-205	0.160-4.10
50-5520-01	TC5020	0.6-15	0.160-1.602	10.7-267	0.214-5.34
50-5530-01	TC5030	0.9-22.5	0.534-5.340	16.0-401	0.32-8.02

Total hardness

Total hardness is the total amount of calcium and magnesium ions in water and the conversion units vary from country to country and are commonly used in mmol, ppm CaCO₃. Hard water is not a serious health hazard. However, high hardness water can cause serious problems in industrial environments where it is common to monitor water hardness to prevent costly failures of components such as cooling towers, boilers and other equipment that contain or process water.

Warning

Wear protective gloves/protective clothing/face protection.
 FIN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

How to check the expiry date

The label on the reagent bottle: Expires:11/2022 indicates that the bottle is valid until November 2022.

Total alkalinity

Total alkalinity is the total amount of substances in water that can neutralise strong acids. Alkaline compounds in water (such as hydroxides and carbonates) remove H⁺ ions from the water, which reduces the acidity of the water and results in a higher pH. Total alkalinity is measured by measuring the level of acid required to bring the pH of a particular sample to 4.2. At this level, all alkaline compounds are completely used up. Measuring alkalinity is essential to determine the ability of acidity and corrosive influences produced in water and is commonly used in boiler water quality monitoring.

Technical parameters

Products:	Hardness Reagent, Alkalinity Reagent
Capacity:	500ml/bottle
Expiry date of reagent:	2 years from the factory
Number of measurements:	ca. 5000~10000 analysis
storage:	storage in darkness (<25°C)

Hardness Rapid Test Kit TH10/TH100

Jensprima hardness test kits are used to quickly determine the total hardness concentration of water in a simple and fast test in approximately 1 minute, allowing for a quick test of total hardness anywhere, anytime



Measurement parameters

Total Hardness

Applications

Rapid determination of hardness of softened effluent and boiler feed water

Product Type

Model: TH10

TH10 1.0ppm per drop for 5ml water sample
 For 10ml water sample, TH10 0.5ppm per drop

Model: TH100

For 5ml water sample, TH100 10ppm per drop
 TH100 5ppm per drop for 10ml water sample

1mmol/l = 100ppm CaCO₃



Features

- Precise: each squeeze is a drop of the same volume of indicator
- Quick: drop in indicator, immediate colour change
- Easy to understand: at a glance you can tell the colour change of an agent
- Economical: hardness concentration can be found by calculating the number of drops, no need to purchase analytical equipment

Instructions For Use



- Take out the hardness test box, there are hardness indicator and sampling bottle inside.
- Use the sampling bottle to take 5mL water sample.
- Drop the hardness indicator into the water sample and shake it continuously.
- When there is hardness in the water sample, the water sample will show a pink colour
- Titration until the pink colour changes to dark green, stop titration and write down the number of drops.

Jensprima hardness test kits are used to quickly determine the total hardness concentration of water in a simple and fast test in approximately 1 minute, allowing for a quick test of total hardness anywhere, anytime

Online Phenolphthalein Alkalinity Analyser

PACON 4900

PACON 4900 is a compact, easy to operate and accurate on-line analyser from JENSPRIMA for the automatic on-line measurement of phenolphthalein alkalinity and quality control of boiler water. The titrimetric colour change principle allows the measurement of high and low ranges by selecting different reagents. Low maintenance and low reagent consumption for long continuous operation. Standard 4-20mA and RS485 Modbus outputs for easy integration into your existing control system.



Measurement parameters

Phenolphthalein alkalinity (p-value)

Applications

boiler feedwater, boiler water, Cooling Water

Features

- Durable, accurate analyser method (titration for colour change)
- Automatic on-line monitoring, only one reagent required
- Special material measuring bath, no condensation on optics
- Stable measurements, generally no calibration required
- 4-20mA/RS485 Modbus outputs
- 4 programmable relay outputs
- External signal input function (can be linked with external devices)
- Compact design for easy installation
- Low maintenance and low reagent consumption

Two different measurement ranges of reagents are available:

TP5050 Phenolphthalein alkalinity: 0.2-5mmol/L
 TP5200 Phenolphthalein alkalinity: 0.8-20mmol/L



Technical parameter

Reagents selected: TP5050 : 0.2 - 5mmol/L, TP5200 : 0.8 - 20mmol/L
 Accuracy: ±5% of the maximum value of the selected reagent
 Repeatability: ±2.5% of the maximum value of the selected reagent
 Reagent consumption: Titrimetric colour change method 0.05-0.6ml/per analysis
 Reagent expiry: 2 years from the factory
 Analysis time: ca. 3 min depending on phenolphthalein alkalinity concentration and set rinse time
 Measurement interval: 5-360 min optional
 Automatic cleaning: The instrument is automatically rinsed after each measurement
 Calibration: Service menu manual calibration
 Ambient temperature: 10-45°C
 Water sample temperature: 5-40°C
 Water sample pressure: 0.5-5 bar, 1-2 bar recommended
 Water quality requirements: Clear, colourless, no suspended matter, no air bubbles, pH>8.2
 Power supply: 100-240VAC, 50/60Hz
 Power consumption: 20W (at work), 3.5W (at standby)
 Inlet/outlet: 6mm hose, open discharge no back pressure discharge 0/4-20mA
 Current output: 0/4-20mA
 Relay output: 4 passive NC/NO relay outputs, 250VAC/1A
 External input: 2 programmable input contacts
 Protection class: IP65
 Dimensions: 300x300x200mm
 Weight: ca. 4Kg

Measurement is by titration and the colour changes markedly from red to yellow. Phenolphthalein alkalinity measurements are commonly used in boiler feed water and boiler furnace water to estimate corrosion behaviour and are measured in mmol/L.

Order Guide

Order No.	Description
33-4900-00	PACON 4900 online Phenolphthalein Alkalinity Analyser
50-4905-01	TP5050 phenolphthalein alkalinity
50-4920-01	TP5200 phenolphthalein alkalinity
50-5000-10	Spare Parts Kit including pump head (including pump tube), all seals, stirrups connection pipe of reagent bottle, recommend to exchange every year.

Online Iron Ion Analyser

PACON 3400

PACON 3400 is a compact, easy-to-operate and accurate on-line iron ion analyser from JENSPRIMA that measures the concentration of dissolved iron (divalent and trivalent iron) in water for controlled removal of iron ions. Using the colorimetric principle, it is very easy to switch between the LRS (0.01-0.5 mg/L) and HRS (0.2-6.0 mg/L) measurement ranges at any time by using different coloured LED light sources and selecting reagents. Low-maintenance design for long periods of continuous operation. Standard 0/4-20mA and RS485 Modbus outputs for easy integration into your existing control system.



Measurement parameters

Iron ions (divalent iron + trivalent iron)

Applications

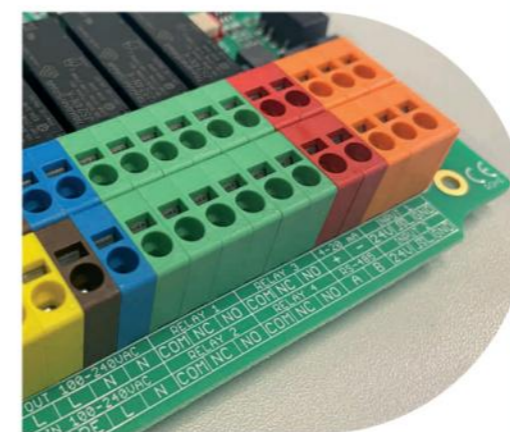
boiler feedwater, Drinking Water, Iron removal Process

Features

- Based on ISO 6332 measurement method (colorimetric method)
- Automatic on-line monitoring, only one reagent required
- Special material measuring tank, condensation will not adhere to the optics
- Automatic zero point adjustment before each measurement to ensure measurement stability
- 4-20mA/RS485 Modbus outputs
- 4 programmable relay outputs
- External signal input function (can be linked with external devices)
- Compact design for easy installation
- Low maintenance and low reagent consumption

Two different measurement ranges of reagents are available:

FE3401 Low range Iron ion reagents: 0.01~0.5mg/L
 FE3402 High range Iron ion reagents: 0.2~6mg/L



Technical parameter

Measurement method: Colourimetric method
 Measuring range: low range: 0.01-0.5mg/L, High range: 0.2-6.0mg/L
 Accuracy: ± 10%
 Repeatability: ± 5%
 Reagent consumption: ca. 0.5 ml/analysis
 Expiry date of reagent: 1 year (<25°C, storage in shade)
 Water consumption: approx. 2 L of water per analysis (at 2 bar pressure)
 Power supply: 85 - 265 VAC, 47-63Hz
 Power consumption: 25VA (operating), 3.5VA (standby)
 Protection class: IP65
 Display: Graphic backlit LCD display
 Measurement units: mg/L
 Outputs: 1. 4 sets of programmable relay outputs (max. 250 V, 4 A), 2. 1 group of 0 / 4 - 20 mA signals, max. 750 Ω
 3. RS485 Modbus RTU communication
 Inputs: 1. IN1 input (start analysis / flow control switch / water meter)
 2. IN2 input (reset device)
 Analysis period: Time interval measurement (10~360min)/external signal/ flow signal
 Flushing time: settable (15~1800s)
 Water quality requirements: colourless, no suspended matter, no air bubbles
 Temperature: ambient: 5°C - 45°C, water sample: 5°C - 40°C
 Humidity: 20 - 90% RF, indoor installation
 Pressure: ca. 0.5 - 5 bar (max.) (1 - 2 bar recommended)
 Water inlet/outlet connection: 6 mm OD hose
 Dimensions/weight: 300x300x200mm (WxHxD), ca. 4Kg
 Mounting: Wall mounted

Order Guide

Order No.	Description
33-3400-00	PACON 3400 Online Total Iron Analyser
50-3400-01	FE3401 Low range Iron ion reagents
50-3400-02	FE3402 High range Iron ion reagents
50-5000-10	Spare Parts Kit including pump head (including pump tube), all seals, stirrups connection pipe of reagent bottle, recommend to exchange every year.

Online residual/total chlorine analyser (colourimetric)

PACON 2501

The PACON 2501 on-line residual chlorine analyser is an accurate, cost-effective and low-maintenance instrument for continuous on-line monitoring of residual chlorine. It detects the concentration of residual chlorine using the DPD colourimetric method and automatically adds reagents for colourimetric measurement, making it suitable for residual chlorine measurement during chlorination and disinfection and for monitoring residual chlorine concentrations in drinking water networks. Selecting total chlorine reagent, total chlorine concentration can be monitored online.



Measurement parameters

residual chlorine, total chlorine

Applications

Piped water, Drinking water network, Reverse osmosis, Chilled water
Swimming pools, Shampoo (liquid), Sterilisation process

Features

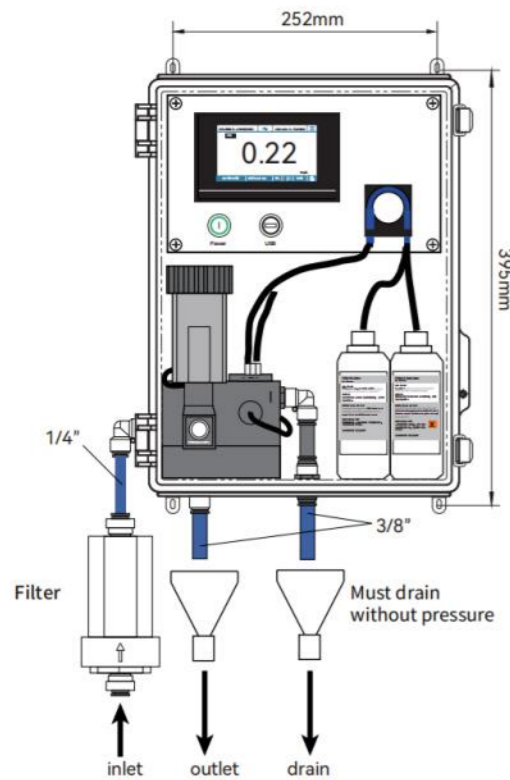
- DPD colourimetric method for more accurate and stable measurements
- Auto-diagnostics and auto-calibration
- Low reagent consumption and easy replacement
- Automatic and manual measurement modes
- Analysis cycle time approx. 2.5 minutes
- IP65 protection rating
- 4-20mA output
- RS485 Modbus communication
- Password protection against unauthorised operation

Technical parameter

Measuring principle: DPD colourimetric method
 Measuring range: 0.00-5.00 mg/l (ppm) residual chlorine
 Resolution: 0.01 mg/l (ppm)
 Accuracy: 1 per cent f.s.
 Cycle time: adjustable: 60 - 3600s (system default 300s)
 Display: 4.3" LCD touch screen display(measured value, measurement mode and relay status)
 Language: Chinese/English
 Power supply: 90-260VAC, 50/60Hz
 Analogue output: 4-20mA output, Max.500Ω
 Digital output: RS485 Modbus
 Alarm: 2 sets of independently set Hi/Lo alarm points with hysteresis setting, 5A/250VAC
 Operating conditions: Operating temperature: 0-50°C; Humidity: 10-95 per cent, non-condensing
 Recommendation: Flow rate: 1/min; Pressure: 1 bar
 Protection class: IP65
 Installation: wall mounting
 Size: 300x400x180mm

Order Guide

Order No.	Description
33-2501-00	PACON 2501 On-line Residual/Total Chlorine Analyser
50-2501-00	Residual chlorine reagent kit, 2500 measurements possible
50-2501-02	Total chlorine reagent kit, 2500 measurements possible
50-2501-10	Spare parts kit for residual chlorine, including: peristaltic pump tubing, vials, etc.



PACON 2001 online turbidity analyser

PACON 2001

The PACON 2001 flow-through turbidity analyser is an on-line product designed for low range turbidity monitoring in waterworks and pipeline networks. The 90° scattered light method, which meets the ISO7027 standard, is widely used for on-line monitoring of turbidity in all types of clean water, such as waterworks outfalls and engineering drainage outfalls.



Measurement parameters

Turbidity

Applications

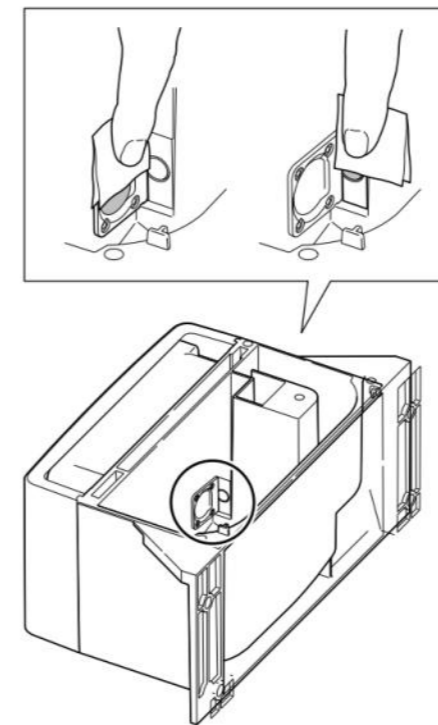
Waterworks, industrial processes, drinking water networks

Features

- 90° light scattering principle, conforms to ISO 7027 standard.
- Bubble elimination tank design, easy to install
- Anti-condensation function for high precision measurement
- Chinese/English menu for easy operation
- Password protection to prevent unauthorised operation
- Optional automatic drain
- 2 x programmable Hi/Lo relay outputs
- 4-20mA/RS485 Modbus RTU outputs
- Data storage function, supports data export from USB stick

Technical parameter

Measuring principle: 90° scattered light
 Measuring range: 0.0001-100NTU
 Resolution: 0.0001/0.01/0.01NTU
 Accuracy: ±2% of reading or 0.02NTU, whichever is the greater.
 Light source: LED
 Power supply: 90-260VAC, 50/60Hz, 24VDC optional
 Display: LCD backlit display of measured value, temperature and relay status
 Language: Chinese/English
 Power supply: 90-260VAC, 50/60Hz, 24VDC optional
 Analogue Output: Isolated 4-20mA output (turbidity), Max. 500Ω.
 Digital communication: RS485 Modbus RTU
 Alarm output: 2 groups of independently set Hi/Lo alarm points, with hysteresis setting.
 Protection grade: IP65
 Inlet water flow: 100-200ml
 Operating temperature: 0 - 50°C
 Installation: wall mounted
 Size: 300x400x180mm
 Weight: ca.5Kg



Order Guide

Order No.	Description
33-2001-00	PACON 2001 Online Turbidity Analyser, 220VAC
33-2001-04	PACON 2001 Online Turbidity Analyser, 24VAC
33-2001-10	自动排污阀, 24VDC

Streaming Current Detector

Flumsys 10SC

The streaming current detector is used to continuously measure the electric charge on the tiny suspended particles and colloids in the liquid. The electric charge is measured by electronic signal processing. The measurement result is converted into A.C signal or streaming current (SC). The value of streaming current (SC) is proportional to the charge density. The charged state depends on the water after flocculation. The excess positive and negative charges can quickly react to changes in water characteristics (such as chromaticity and turbidity) by detecting the changes in the streaming current (SC) value, thereby making the operation. The personnel can adjust the metering of the flocculant accordingly.



The streaming current detector is used to continuously measure the electric charge on the tiny suspended particles and colloids in the liquid. The electric charge is measured by electronic signal processing. The measurement result is converted into A.C signal or streaming current (SC). The value of streaming current (SC) is proportional to the charge density. The charged state depends on the water after flocculation. The excess positive and negative charges can quickly react to changes in water characteristics (such as chromaticity and turbidity) by detecting the changes in the streaming current (SC) value, thereby making the operation. The personnel can adjust the metering of the flocculant accordingly.

Measurement parameters

Streaming Current Detector (SCD)

Applications



Flumsys 10SC provides water treatment plant operators with an effective tool to optimise and control the amount of flocculant and polymer used!

Advantage

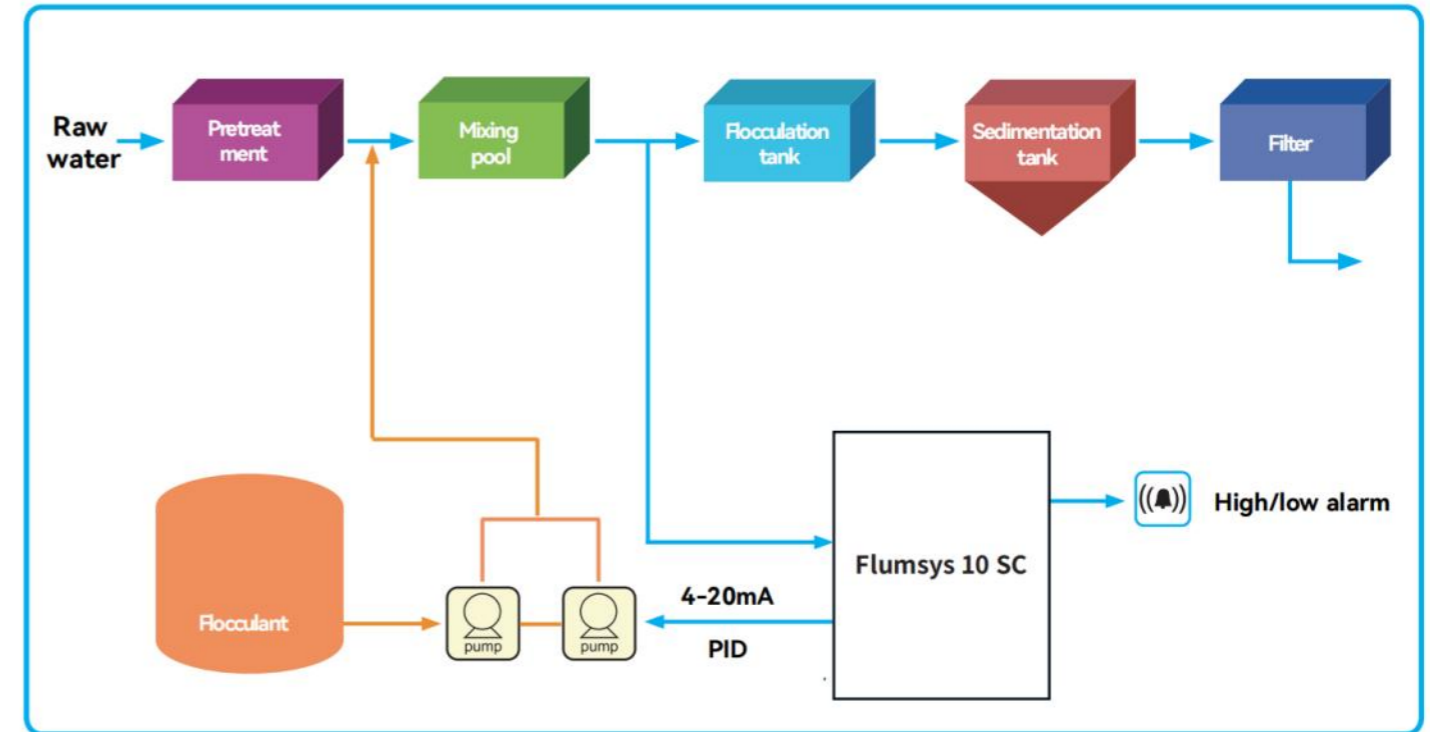
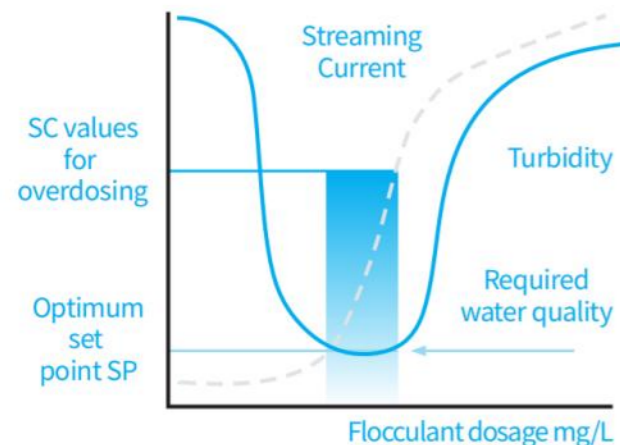
- Automatic control of flocculant dosing
- Reduces overall flocculant costs
- Guaranteed effluent quality
- Low operation and maintenance costs

Features

- Simultaneous display of actual SC values and relative SC values
- Real-time SC trend graph
- Automatic cleaning function (optional cleaning solenoid valve)
- PID control function
- SC 4-20mA and PID 4-20mA outputs
- 2 high/low alarm outputs
- RS485 Modbus RTU communication
- Password protection against unauthorised operation
- Data logging function, supports U disk to export (Excel)
- Two modes of automatic/manual control
- Optional pre-treatment system for extended maintenance intervals

Water Quality Requirements

Conductivity: < 3000µS/cm
 pH: 4~11pH (pH < 7 after controlled flocculant application, SCD measurement is best)
 Optional pre-treatment system for extended maintenance intervals



Technical parameter

Measurement parameters: Streaming Current
 Measurement range: -1000~1000SC
 Accuracy: ±0.1%
 Repeatability: ±0.1%
 Response time: 1s
 Operating temperature: 0-50°C
 Power supply: 220VAC, 50/60Hz
 Display: 7" Touch screen LCD display
 Analogue output: SC 4-20mA and PID 4-20mA output, Max. 500Ω
 Communication: RS485 Modbus RTU
 Alarm relay: High/low alarm contact output, 24VDC/1A
 Automatic cleaning: cleaning interval: 0-9999min
 cleaning time: 0-999s
 Data storage: Real-time data recording, support U disk export (Excel format)
 Sampling requirements: flocculant dosing point to sensor time about 3 ~ 5min
 Flow rate requirements: 1 ~ 4L/min
 Protection class: Controller: IP65, Sensor: IP54
 Dimensions: Controller: 300x350x200mm, Sensor: 250x350x150mm
 Weight: Controller: ca. 10Kg, Sensor: ca. 10Kg

Order Guide

Order No.	Description
33-5510-10	Flumsys 10SC Streaming Current Detector
33-5510-11	Flumsys 10SC cleaning solenoid valve
33-5510-12	Flumsys 10SC matching filter
50-5510-10	Flumsys 10SC PTFE kit



Streaming Current Detector

Flumsys 10TC-SP

The streaming current is used to continuously measure the electric charge on the tiny suspended particles and colloids in the liquid. The electric charge is measured by electronic signal processing. The measurement result is converted into A.C signal or flowing current (SC). The value of flowing current (SC) is proportional to the charge density. The charged state depends on the water after flocculation. The excess positive and negative charges can quickly react to changes in water characteristics (such as chromaticity and turbidity) by detecting the changes in the flowing current (SC) value, thereby making the operation. The personnel can adjust the metering of the flocculant accordingly.



The Flumsys TC-SP streaming current can be equipped with a pretreatment system to ensure the long-term trouble-free operation of the instrument, with continuous measurement, automatic cleaning, PH measurement and PID control function can be connected to the existing dosing system and start automatic dosing control. The amount of flocculant will be automatically adjusted according to the characteristics of the water.

Measurement parameters

Streaming Current/SCD, pH

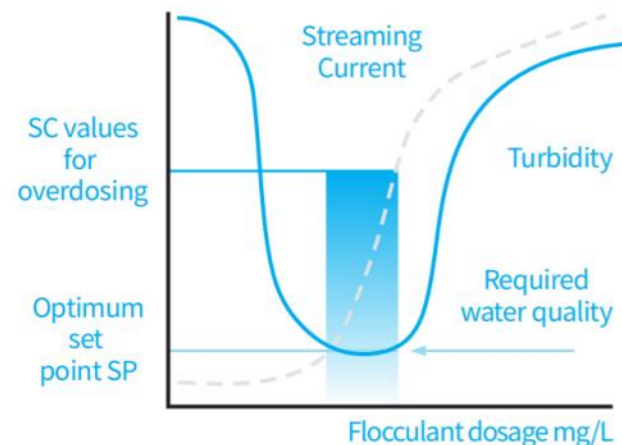
Applications



Flumsys TC-SP provides water treatment plant operators with an effective tool to optimise and control the amount of flocculant and polymer used!

Advantage

- Automatic control of flocculant dosing
- Reduces overall flocculant costs
- Guaranteed effluent quality
- Low operation and maintenance costs

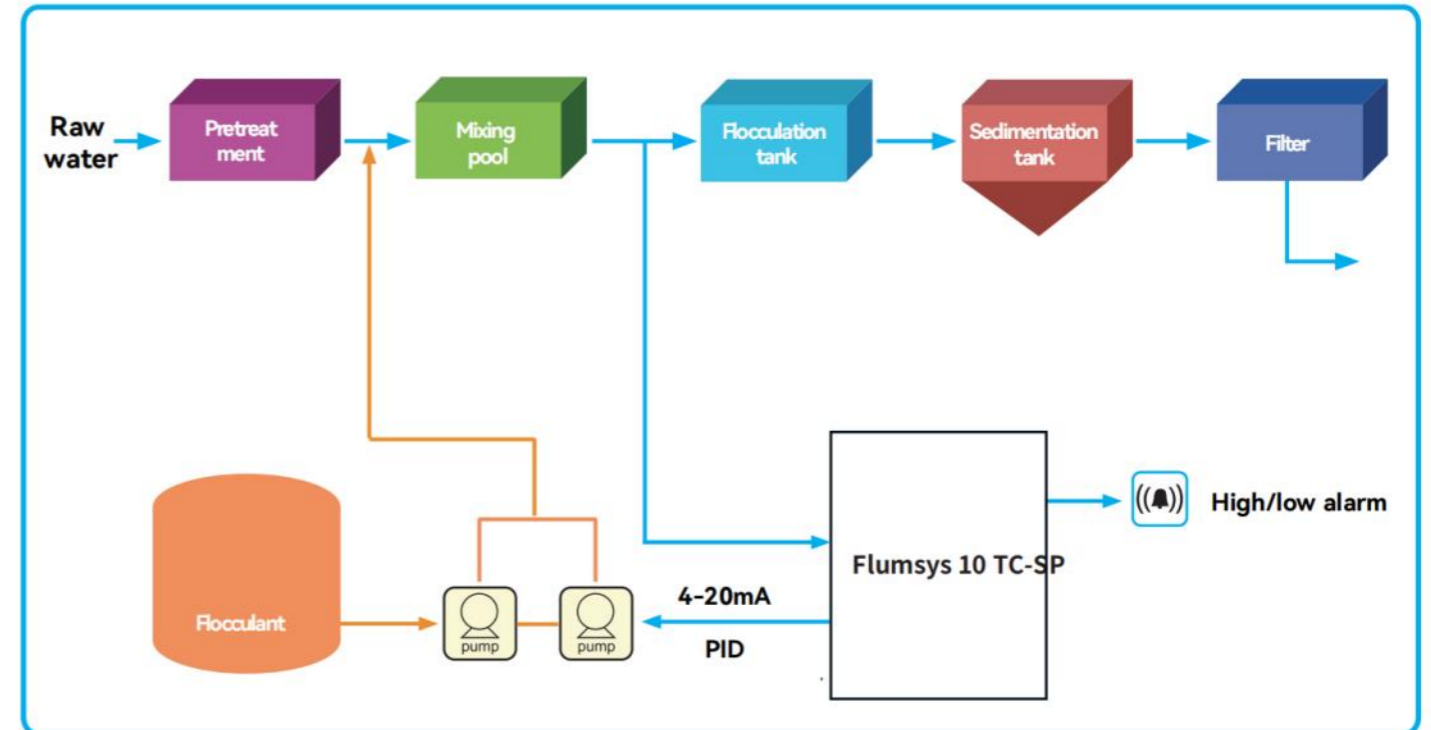


Features

- Simultaneous display of actual SC value and relative SC value
- Simultaneous pH monitoring (optional) for real-time knowledge of flocculation effects
- Automatic cleaning function
- PID control function
- SC 4-20mA and PID 4-20mA output
- 2 high/low alarm output
- RS485 Modbus RTU communication
- 4.3" colour touch screen, easy to operate
- Password protection to prevent unauthorized operation
- Data recording function, support U disk to export (Excel)
- Automatic control / manual control two modes
- Split sensor design for easy installation on site
- Optional pretreatment system, greatly reducing maintenance

Water Quality Requirements

Conductivity: < 3000µS/cm
 pH: 4~11pH (pH < 7 after controlled flocculant application, SCD measurement is best)
 Optional pre-treatment system for extended maintenance intervals



Technical parameters

Measuring parameter: Streaming Current/SCD, pH
 Measurement range: -1000~1000SC
 0~14pH
 Accuracy: ±0.1%
 ±0.01pH
 Repeatability: ±0.1%
 Response time: 1s
 Operating temperature: 0~50°C
 Liquid connection material: PTFE, POM, SS316
 Housing: ABS/PC
 Power supply: 220VAC, 50/60Hz
 Analogue output: 2 x 4-20mA (measured value and PID), max. load 500Ω
 Relay output: 2 high/low relays, alarm value and hysteresis can be set
 Automatic cleaning: cleaning interval: 0~9999min, cleaning time: 0~999s
 Digital communication: RS485 Modbus RTU
 Data storage: Real time data recording, U disk export support (Excel format)
 Sampling requirements: flocculant dosing point to sensor time about 3~5min
 Flow rate requirement: 1~4L/min
 Protection class: IP65
 Dimensions: Controller: 200×190×90mm, Sensor: 250×350×150mm
 Weight: Controller: ca.1Kg, Sensor: ca.5Kg

Order Guide

Order No.	Description
33-2310-61	Flumsys 10TC-SP Streaming Current Detector
33-5510-11	Cleaning solenoid valves
33-5510-12	Filters
33-5510-10	PTFE kit
35-0125-10	innoSens 125T pH/TSensor



Conventional Five-Parameter Water Quality Analyser

Flumsys 10MT

The Flumsys 10MT multi-parameter controller can be used to simultaneously monitor multiple parameters including: pH, conductivity, dissolved oxygen, turbidity and temperature online through optional sensors according to the customer's requirements. Other measurement parameters can also be extended according to customer requirements. The 7" touch screen controller is easy to operate, easy to install and plug and play for sensors. Data storage function and U-disk export support. RS485 Modbus RTU communication as standard, with optional data telemetry module.

Measurement parameters

- pH
- Conductivity
- Dissolved oxygen
- Turbidity
- Temperature
- Other parameters extendable

Applications

- Surface water
- Drinking water sources
- Groundwater
- Aquaculture
- Online water quality monitoring for industrial sectors

Features

- Flexible configuration of measurement parameters**

5 water quality parameters including pH, conductivity, dissolved oxygen, turbidity and temperature can be continuously monitored. Other parameters are customised as required.

- Modular design**

Analogue sensors can be configured with different modules depending on the sensor type.

- Sensor plug and play, automatic recognition by the controller**

- Imported sensors with good repeatability and stability**

The pH sensor uses a PTFE diaphragm for greater resistance to contamination.
 The conductivity sensor is a two-stage type with stable and reliable measurement.
 The dissolved oxygen sensor uses fluorescence method technology, which is basically maintenance-free and comes with NTC temperature compensation function.
 The turbidity sensor complies with ISO 7027 standard method and is not disturbed by the colour of the sample

- Optional air automatic cleaning function**

Optional automatic air cleaning device with timed probe flush

- 7" colour touch screen, simple and easy to operate**

Chinese/English menu for quick set-up and calibration. Data storage, access and USB stick export functions.

- IP65 degree of protection**

Suitable for various indoor and outdoor installation environments.

- Standard RS485 Modbus RTU communication**

- Optional wireless transmission module + cloud platform**

Optional WIFI/GPRS 4G wireless transmission module, mobile phone APP, web page for real-time data, historical data.



Technical parameter

Power supply :	90-260VAC, 50/60Hz
Power consumption:	<20W
Digital output:	standard RS485 Modbus RTU
Wireless transmission:	optional wireless transmission module + cloud platform
Display:	7" colour LCD touch screen with LED backlight
Resolution:	800*480
Data storage:	Historical data can be queried, support U disk export
Case material:	ABS/PC
Storage temperature:	-20-70°C
Operating temperature:	0-60°C
Dimensions:	229 x 203 x 99 mm
Protection class:	IP65
Weight:	Ca.1.5Kg

Measurement range

pH	Measurement principle: Glass Electrode Measurement range: 0-14pH, -2000-2000mV Resolution: 0.01pH, 1mV Accurate: ±0.01pH, ±1mV Response time: ≤30s	
Conductivity	Measurement principle: Two-stage Measurement range: 0-2000uS/cm Resolution: 0.01uS/cm Accurate: ±1%f.s. Response time: ≤30s	
Dissolved Oxygen	Measurement principle: Fluorescence Measurement range: 0-20.00mg/L Resolution: 0.01mg/L Accurate: ±0.1ppm/±1% Response time: ≤30s	
Turbidity	Measurement principle: 90°scattered light Measurement range: 0-100NTU/0-4000NTU Resolution: 0.001/0.01/0.1NTU, Depend on the measuring range Accurate: ±2% of reading Response time: ≤30s	
Temp	Measurement principle: Thermistor Method Measurement range: 0-100°C Resolution: 0.1°C Accurate: ±0.2°C Response time: ≤30s	
Free Chlorine Chlorine Dioxide	Measurement principle: Constant Voltage Method Measurement range: 0-2.000/0-20.00mg/L Resolution: 0.001/0.01mg/L Accurate: ±2%f.s. Response time: ≤30s	

*Digital Water Quality Sensors Technical Data Consult JENSPRIMA Inc.

Order Guide

Item No.	Measurement Parameters	Additional Parameters	Signal Transfer
Flumsys 10MT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Five parameters:	pH, conductivity, dissolved oxygen, high-range turbidity, temperature. 0 无	0 NO	R RS485 Modbus RTU
	pH, conductivity, dissolved oxygen, Low-range turbidity, temperature. 1 Cl2	1 chromaticity	G Wireless Transmission
	Other customised	2 ClO2	A APP+Cloud Platform

Multi-Parameter Water Quality Analyser (For Drinking Water)

Flumsys 20MT

Flumsys 20MT online analyser is designed for network water quality monitoring, secondary water quality monitoring and agricultural water quality monitoring, integrated integration, can measure and display multiple parameters at the same time, with data storage, data transmission and other functions. The Chinese operating interface is simple to operate and allows for quick setup and calibration of the sensor. The analyser uses a high precision turbidity module with built-in antifoaming structure for more stable and accurate measurements. The residual chlorine module is available with DPD reagent colourimetric method or constant voltage electrode method to meet the different application requirements of customers

Measurement parameters

- Free chlorine
- Total chlorine
- Chlorine dioxide
- Turbidity
- pH
- ORP
- Conductivity (Salinity/TDS)
- Dissolved oxygen
- Temperature

Applications

- Waterworks
- Water supply network
- Rural drinking water
- Swimming Pool

Features

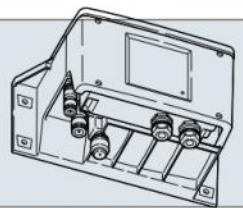




- Highly accurate turbidity measurement**
 90° scattered light principle in accordance with ISO 7027
 Built-in bubble elimination structure and anti-condensation function for more accurate and reliable measurements.
 LED light source, no need to replace in 10 years. 0.0001 - 5/20/100NTU range available.
- Colourimetric measurement of residual chlorine by DPD reagent and constant voltage electrode method**
 The DPD reagent colourimetric method is the international standard for high precision and stability measurements.
 Constant voltage electrode method, without any reagents, no need to change diaphragms and electrolyte.
- Modular design, flexible configuration of measurement parameters**
 7 water quality parameters including residual chlorine, turbidity, pH, ORP, conductivity, dissolved oxygen and temperature can be continuously monitored and customised as required.
- Multi-parameter integrated design**
 Small footprint, easy to install, low maintenance, can be suitable for long unattended and stable operation.
- 7" colour touch screen, simple and easy to operate**
 Chinese menu for quick set-up and calibration.
 Data storage, access and USB stick export functions.
- IP65 protection class**
 Suitable for indoor and outdoor installation in a variety of environments
- Optional wireless transmission module + cloud platform**
 RS485 Modbus RTU communication as standard, optional WIFI/GPRS 4G wireless transmission. Mobile APP, webpage for real time data and historical data.



Technical parameter

Power supply:	0-260VAC, 50/60Hz
Power consumption:	20W
Digital output:	RS485 Modbus RTU
Wireless transmission:	optional wireless transmission module + cloud platform
Display:	7" LCD touch screen with LED backlight display
Data storage:	Historical data can be queried, support U disk export
Storage interval:	Can be set from 1-3600s, default 10s
Dimensions:	380x740x180mm
Protection class:	IP65
Weight:	ca.15Kg
Inlet pressure:	0.5-1bar(Overpressure recommended with pressure reducing valve)
Flow Rate:	300-500ml/min
Ambient temperature:	0-50°C
Temperature of watersample:	0-40°C
Water inlet/outlet connection:	6mm/10mm hose

Measurement range

Turbidity	Measurement principle: 90°scattered light Measurement range: 0-5/10/100NTU Resolution: 0.0001/0.001/0.01NTU, Depend on the measuring range Accurate: ±2%of reading for <40 NTU, ±5%of reading Response time: ≤30s	
Residual Total chlorine	Measurement principle: DPD reagent colourimetric method Measurement range: 0-5.00mg/L Resolution: 0.01mg/L Accurate: ±1%f.s. Response time: ≤2.5min	
Free Chlorine Chlorine Dioxide	Measurement principle: constant voltage method Measurement range: 0-2.000/0-20.00mg/L Resolution: 0.001mg/L Accurate: ±2%f.s. Response time: ≤30s	
pH/ORP	Measurement principle: Glass Electrode Measurement range: 0-14pH, -2000-2000mV Resolution: 0.01pH, 1mV Accurate: ±0.01pH, ±1mV Response time: ≤30s	
Conductivity TDS/Salinity	Measurement principle: Two-stage conductivity/Four-stage conductivity Measurement range: 0-10000uS/cm, 0-200mS/cm Resolution: 0.01uS/cm Accurate: ±1%f.s. Response time: ≤30s	
Dissolved Oxygen	Measurement principle: Four-stage conductivity Measurement range: 0-20.00mg/L Resolution: 0.01mg/L Accurate: ±0.1mg/L Response time: ≤30s	
Temp	Measurement principle: Thermistor Method Measurement range: -5-100°C Resolution: 0.1°C Accurate: ±0.2°C Response time: ≤30s	

*Digital Water Quality Sensors Technical Data Consult JENSPRIMA Inc.

Order Guide

Item No.	Measurement Parameters	Additional Parameters	Signal Transfer
Flumsys 20MT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Four parameters:	turbidity, residual chlorine (DPD colourimetric method), pH, temperature	0 NO 1 Two-stage conductivity	0 NO 1 Dissolved Oxygen
Four parameters:	turbidity, residual chlorine (electrode method), pH, temperature	2 Four-stage conductivity	G Wireless Transmission
Other customised			A APP+Cloud Platform

Boiler Water Quality Online Monitoring system

Flumsys 30MT

Flumsys 30MT Boiler water quality online monitoring system In recent years, maximising the reduction of operating costs for all types of steam boilers has been an important step in improving the economic and environmental performance of businesses, against the backdrop of a global shortage of resources and the promotion of low carbon energy efficiency. In any steam boiler facility, online monitoring of the boiler feedwater or furnace water is an important step in reducing energy costs. In accordance with the Industrial Boiler Water Quality Standard, JENSPRIMA has launched the Flumsys 30MT boiler water quality monitoring system based on the company's speciality products: the online hardness analyser and the online alkalinity analyser, which allow the user to choose the measurement parameters to be measured according to site requirements.

Measurement parameters

- Total hardness: 0.21-534 ppm (Dilution unit can be added)
- Total alkalinity: 5.34-401ppm (Dilution unit can be added)
- Iron ions: 0.001-0.2ppm/0.5-6.0ppm
- pH: 0-14pH
- Conductivity: 0-2000µS/cm
- Dissolved oxygen: 0-200µg/L
- Turbidity: 0-100NTU
- Chlorine ion: 2-20000ppm
- TDS: 0-99900ppm

The above parameters can be freely integrated and combined

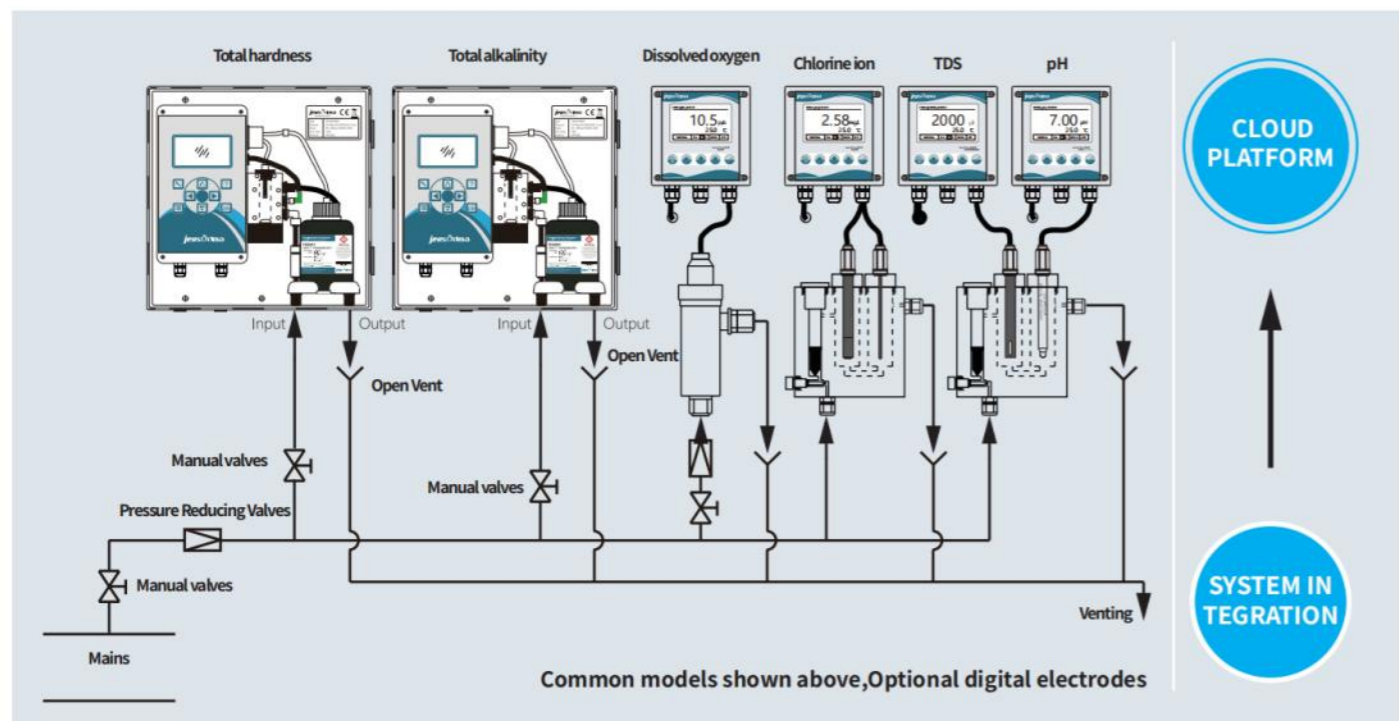
Applications

- Water softening
- Boiler water
- Recycled water
- Desalinated water


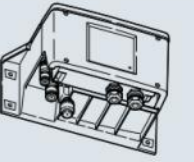

Solutions

According to the national standard GB/1576, Jensprima can provide the following two boiler water quality monitoring solutions:

- 1、 Controller + sensor integration, optional wireless transmission module + cloud APP
- 2、 Digital sensor integration + 7" touch screen display, optional wireless transmission module + cloud app



Measurement range

Total Hardness Total Alkalinity	Measurement principle: Colorimetric Titration	Measurement range: Hardness: 0.21-534ppm, Alkalinity: 5.34-401ppm (Depending on the reagent selected) Resolution: 0.01/0.1/1ppm Accurate: ±5%per cent of the maximum value of the selected reagent Response time: approx. 3 minutes, depending on the measured concentration	
Iron ion	Measurement principle: Colorimetry Measurement range: 0.01-0.5mg/L, 0.2-6.0mg/L Resolution: 0.01/0.1mg/L Accurate: ±10%f.s. Response time: 约7min		
Turbidity	Measurement principle: 90°scattered light Measurement range: 0-5/0-100NTU Resolution: 0.0001/0.001NTU Accurate: ±2%per cent of reading for large values (less than 40 NTU),±5%of reading Response time: ≤30s		
pH	Measurement principle: Glass electrode Measurement range: 0-14pH Resolution: 0.01pH Accurate: ±0.01pH Response time: ≤30s		
Conductivity TDS	Measurement principle: Two-stage Measurement range: 0-2000uS/cm Resolution: 0.1uS/cm,1ppm Accurate: ±1%f.s. Response time: ≤30s		
Dissolved Oxygen	Measurement principle: Polarography Measurement range: 0-200µg/L Resolution: 0.1ug/L Accurate: ±1%f.s. Response time: ≤30s		
Chloride ion	Measurement principle: ion selective electrode Measurement range: 2-20000ppm Resolution: 0.1/1ppm Accurate: ±5%f.s. Response time: ≤30s		

Technical parameters

- Power supply: 220VAC, 50/60Hz
- Digital output: RS485 Modbus RTU
- Wireless transmission: optional wireless transmission module + cloud platform
- Display: 7-inch LCD touch screen with LED backlit display
- Data storage: can query historical data, support U disk export
- Storage interval: 1-3600s, default 10s
- Dimension: Conventional 380x740x180mm, according to measurement parameters
- Protection grade: IP65
- Weight: approx. 15Kg
- Inlet pressure: 1-2bar (pressure is too high, we recommend adding a pressure reducing valve)
- Flow rate: 300-500ml/min
- Ambient temperature: 0-50°C
- Temperature of water sample: 0-40°C
- Inlet/Outlet Connection: 6mm/10mm hose

Order Guide

Item No.	Integration Mode	Measurement parameters	Signal transmission
Flumsys 30MT	<input type="checkbox"/> 1 Touch screen + digital sensor <input type="checkbox"/> 2 Controller + Sensor <input type="checkbox"/> 3 Other customised	<input type="checkbox"/> 0 NO <input type="checkbox"/> 1 Total Hardness <input type="checkbox"/> 0 NO <input type="checkbox"/> 1 iron ion <input type="checkbox"/> 0 NO <input type="checkbox"/> 1 Conductivity <input type="checkbox"/> 0 NO <input type="checkbox"/> 1 pH <input type="checkbox"/> 0 NO <input type="checkbox"/> 1 Total Alkalinity <input type="checkbox"/> 0 NO <input type="checkbox"/> 1 Chloride ion <input type="checkbox"/> 0 NO <input type="checkbox"/> 1 Dissolved Oxygen	<input type="checkbox"/> R.RS485 Modbus RTU <input type="checkbox"/> G Wireless Transmission <input type="checkbox"/> A APP+Cloud Platform

Intelligent Controller

innoCon 6800 plus

The innoCon 6800 plus intelligent controller is designed for water treatment and industrial process monitoring, with Chinese/English menus, automatic temperature compensation, two 4-20mA/RS485 Modbus RTU and Hi/Lo alarm outputs as standard, panel and wall mounting. Different water quality parameters can be measured by selecting different innoSens electrodes.



Measurement parameters

pH/ORP、Conductivity/TDS/Salinity、Residual chlorine/Chlorine dioxide/Ozone、Dissolved Oxygen、Ion concentration

Applications

Wastewater, boiler water, drinking water process water, untreated water

Features

- The latest wide power input, super anti-interference design
- Large-screen backlit LCD shows measured values, temperature and relay status
- Chinese / English menu, easier to operate
- Password protection, to prevent unauthorized operation
- New calibration steps can help reduce operational errors
- 2 sets relay output can set High/ Low
- Automatic cleaning relay output
- 2 channel 4-20mA current
- RS485 Modbus output

Technical parameter					
Item No.:	innoCon 6800P	innoCon 6800C	innoCon 6800CL	innoCon 6800O	innoCon 6800I
Measurement:	pH/ORP	Conductivity/TDS/Salinity	Cl ₂ / ClO ₂ /Ozone	ppm/ppb Dissolved Oxygen	Ion concentration
Range:	-2.00 - 16.00pH -2000 - 2000mV	0 - 2000mS/cm, 0 - 99900ppm,0-78ppt	0 - 2.000ppm 0 - 20.00ppm	0-20.00mg/L,0-200% 0 - 200µg/L	0 - 20000ppm
Resolution:	0.01pH/1mV	0.01/0.1/1	0.001/0.01ppm	0.01mg/L,0.1µg/L	0.01/0.1/1ppm
Accuracy:	±0.01pH/±1mV	±1%	±2%f.s.	±1%f.s.	±5%f.s.
Compensation:	PT1000 or NTC10K	PT1000 or NTC30K	PT1000	PT1000 or NTC10K	PT1000 or NTC10K
Display:	Big-size screen of crystal display, white back light				
language:	Chinese / English				
Passcode:	Set mode: 0022, Calibration mode: 0011				
Power supply:	90 - 260V AC, 50/60Hz; 24VDC(Optional)				
Current output:	2x Isolated 4-20mA outputs, programmable measured value and temperature, max. load 500Ω				
Digital communication:	RS485 Modbus RTU				
Alarm output:	2 sets of programmable Hi/Lo contacts with hysteresis setting, 5A/250VAC/30VDC				
Washing Relay:	Wash interval: 0.1-1000h, Wash time:1-1000s				
Working temperature:	0~70.0°C				
Protection class:	IP65				
Installation:	Wall/Pipe/Panel Mounting				
Size:	Dimensions: 144 × 144 × 110mm, Panel Cut Size: 138 × 138mm				
Weight:	Ca.0.85Kg				

Order No.	33-6801-10	33-6801-20	33-6801-30	33-6801-40	33-6801-50
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Basic Controller

innoCon 6501

The innoCon 6501 basic controller is designed for water treatment and industrial process monitoring, with Chinese/English menu, automatic temperature compensation, 1 channel 4-20mA/RS485 Modbus RTU and Hi/Lo alarm output as standard, and panel embedded installation. Different water quality parameters can be measured by selecting different innoSens electrodes.



Measurement parameters

pH/ORP、Electrical conductivity/Resistivity、Residual chlorine

Applications

Municipal wastewater, industrial wastewater drinking water, process water

Features

- The latest wide power input, super anti-interference design
- Economical and practical
- Large-screen backlit LCD display, easy to read all day long
- Chinese / English menu, easier to operate
- Password protection, to prevent unauthorized operation
- 2 sets relay output can set High/ Low
- 1 channel 4-20mA current
- RS485 Modbus output

Technical parameter			
Item No.:	innoCon 6501P	innoCon 6501C	innoCon 6501CL
Measurement:	pH/ORP	Electrical conductivity/Resistivity	Residual chlorine
Range:	-2.00 - 16.00pH -2000 - 2000mV	0 - 2000mS/cm, 0 - 99900ppm, 0-78ppt	0 - 2.000ppm 0 - 20.00ppm
Resolution:	0.01pH/1mV	0.01/0.1/1	0.001/0.01ppm
Accuracy:	±0.01pH/±1mV	±1%	±2%f.s.
Compensation:	PT1000 or NTC10K	PT1000 or NTC30K	PT1000 or NTC10K
Display:	screen of crystal display, white back ligh		
language:	Chinese / English		
Passcode:	Set mode: 0022, Calibration mode: 0011		
Power supply:	90 - 260V AC, 50/60Hz; 24VDC(Optional)		
Current output:	1x Isolated 4-20mA outputs, programmable measured value and temperature, max. load 500Ω		
Digital communication:	RS485 Modbus RTU		
Alarm output:	2 sets of programmable Hi/Lo contacts with hysteresis setting, 5A/250VAC/30VDC		
Working temperature:	0~70.0°C		
Protection class:	IP65		
Installation:	Pipe/Panel Mounting		
Size:	108 × 108 × 145mm		
Panel Cut Size:	92 × 92mm		
Weight:	Ca.0.6Kg		

Order No.	33-6501-10	33-6501-20	33-6501-30
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Touchscreen Controller

innoCon 6800

The innoCon 6800 series of single channel controllers are designed for the measurement of a single water quality parameter relevant to the water treatment industry. With a 4.3" colour LCD display and touch operation, setup is very simple. The series controllers have data storage function and support USB stick data export. Three programmable relays and two 4-20mA outputs are provided for control of auxiliary equipment, and Modbus RTU (RS485) communication is standard.



Measurement parameters

Measured parameters, Dissolved oxygen, MLSS, turbidity, ozone, trace oxygen

Applications

Wastewater, boiler water, drinking water, process water, untreated water

Features

- Wide power input, touch screen design
- Large backlit LCD display of measured value, temperature and relay status
- Chinese/English menu, easy to operate
- Password protection to prevent unauthorised operation
- New calibration step-by-step instructions to help minimise operating errors
- 2 x programmable Hi/Lo relay outputs
- Programmable auto-purge relay outputs
- 2 x Isolated 4-20mA outputs
- RS485 Modbus RTU communication
- Data storage function, support for USB stick export

Technical parameter						
Item No.:	innoCon 6800D	innoCon 6800S	innoCon 6800T-1	innoCon 6800T-5	innoCon 6800TO	innoCon 6800OZ
Measurement:	Dissolved oxygen	MLSS	High-range Turbidity	Low-range Turbidity	Trace oxygen	Ozone
Measurement	0.00-20.00ppm	0.0-30.0g/L	0-1000NTU	0.0001-100NTU(FTU)	0-2000ppb(µg/L)	0.005-20.00ppm
Range:	0-200%		0-4000NTU			
Resolution:	0.01ppm	0.1g/L	0.1NTU,0.1mg/L	0.0001/0.001NTU(FTU)	0.1ppb	
Accuracy:	±0.1ppm or ±1%	±3%f.s.	±2%f.s.	±0.02NTU,take largest	±0.5ppb/2%take largest	
Display:	4.3 inch colour LCD touch screen display					
Language:	Chinese/English					
Password:	Setting mode: 0022, Calibration mode: 0011					
Power supply:	110-240VAC,50/60Hz;					
Current Output 1:	Isolated 4-20mA output, measurable value can be set, maximum load 500Ω					
Current Output 2:	Isolated 4-20mA output, measurable value can be set, maximum load 500Ω					
Digital communication:	RS485 Modbus RTU					
Alarm output:	2 sets of programmable Hi/Lo contacts with hysteresis setting, 5 A/250VAC/30VDC					
Cleaning relay:	Cleaning interval: 0.1-1000h, cleaning time: 1-1000s					
Temperature:	Working temperature: 0~70.0°C,Storage temperature: -20~70.0°C					
Protection class:	IP65					
Installation:	Ca.1Kg					
Dimension:	200 × 180 × 90mm					
Weight:	Ca.1Kg					

Order No.	33-6800-10	33-6800-20	33-6800-31	33-6800-35	33-6800-70	33-6800-60
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Dual-Channel Controller

Flumsys 10TC

The Flumsys 10TC Dual Channel Controller is designed to measure a range of water quality parameters relevant to the water treatment industry and can be customised to provide the customer with the freedom to choose two measurement parameters to customise the dual channel to support JENSPRIMA sensors only. The 4.3" colour LCD display is touch operated and very easy to set up. This series controller has data storage function, support U disk data export. Provides three programmable relays and two 4-20mA outputs for controlling auxiliary equipment, Modbus RTU (RS485) communication is standard.



Measurement parameters

Residual chlorine/turbidity, Residual chlorine/pH, Conductivity/pH (two parameters can be customised)

Applications

Municipal wastewater, industrial wastewater, drinking water, process water

Features

- Simultaneous measurement of two parameters, wide power input, touch screen design
- 4.3-inch colour touch screen displays measured value, temperature and relay status
- Chinese/English menu, easy to operate
- Password protection to prevent unauthorised operation
- New calibration step-by-step instructions to help reduce operating errors
- 2 x programmable Hi/Lo relay outputs
- Programmable auto-purge relay outputs
- 2 x Isolated 4-20mA outputs
- RS485 Modbus RTU communication
- Data storage function, support for USB stick export

Technical parameter			
Item No.:	Flumsys 10TC-FT	Flumsys 10TC-FP	Flumsys 10TC-CP
Measurement:	Residual chlorine/turbidity	Residual chlorine/pH	Conductivity/pH
Measurement	0-2.000/0-20.00mg/L	0-2.000/0-20.00mg/L	0-20.00µS/cm, 0-200.0µS/cm
Range:	0.0001-100NTU	0-14pH	0-2000µS/cm, 0-14pH
Resolution:			
Accuracy:			
Display:	4.3 inch colour LCD touch screen display		
Language:	Chinese/English		
Password:	Setting mode: 0022, Calibration mode: 0011		
Power supply:	110-240VAC,50/60Hz		
Current Output 1:	Isolated 4-20mA output, measurable value can be set, maximum load 500Ω		
Current Output 2:	Isolated 4-20mA output, measurable value can be set, maximum load 500Ω		
Digital communication:	RS485 Modbus RTU		
Alarm output:	2 sets of programmable Hi/Lo contacts with hysteresis setting, 5 A/250VAC/30VDC		
Cleaning relay:	Cleaning interval: 0.1-1000h, cleaning time: 1-1000s		
Temperature:	Working temperature: 0~70.0°C,Storage temperature: -20~70.0°C		
Protection class:	IP65		
Installation:	Ca.1Kg		
Dimension:	200 × 180 × 90mm		
Weight:	Ca.1Kg		

Order No.	32-2310-78	33-2310-71	32-2310-31
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PH/ORP Electrode

innoSens pH/ORP

The innoSens series of pH/ORP electrodes are composite electrodes with low-maintenance and high-accuracy features that make them widely used in wastewater treatment, pharmaceutical, chemical, food and beverage industries.

Applicable Controllers

innoCon 6800P Intelligent pH/ORP Controller
 innoCon 6501P Basic pH/ORP Controller

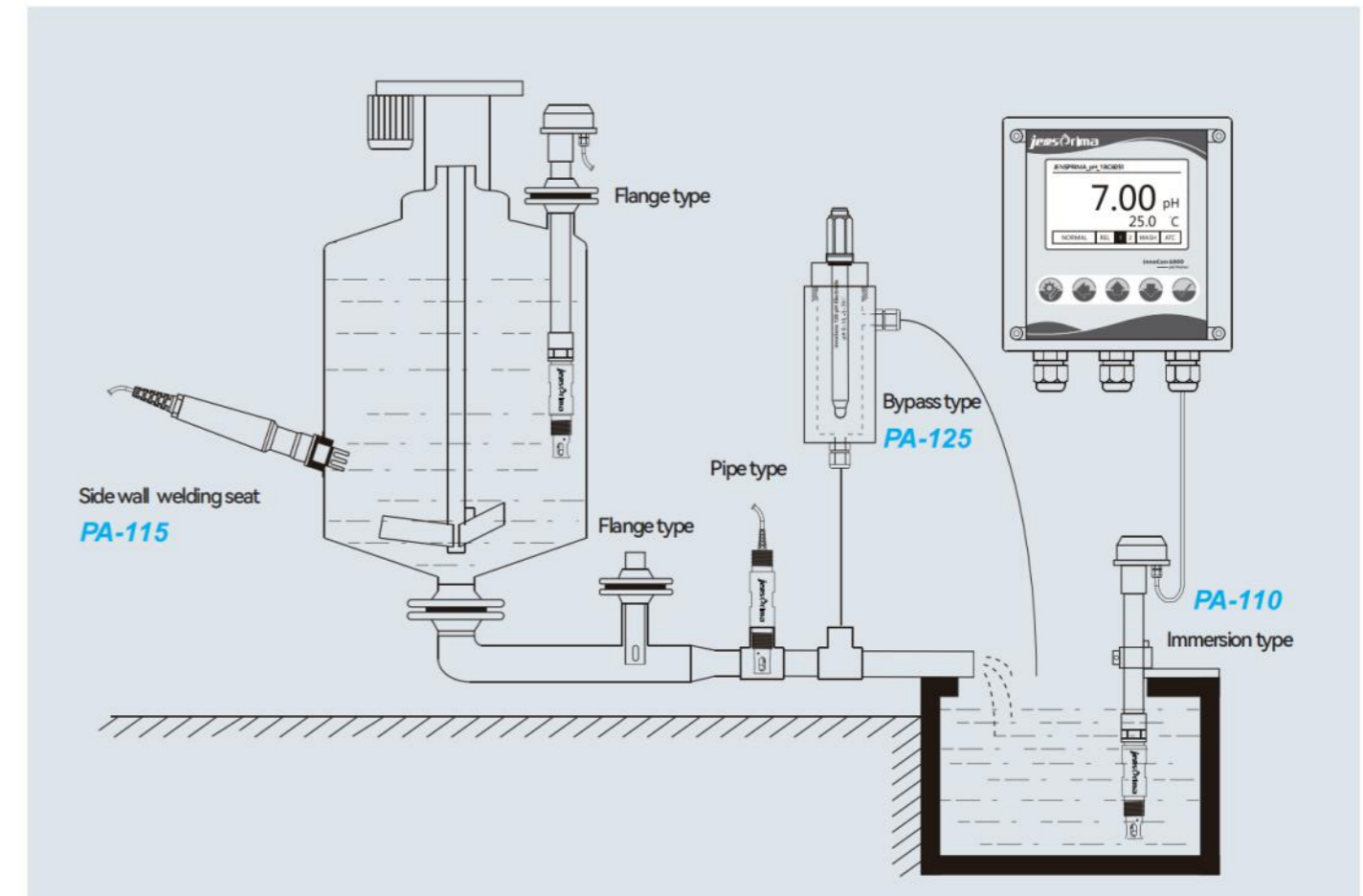
- A/AgCl reference system, Gel and Polymer electrolytes available for longer electrode
- life Open and PTFE diaphragms available for high dirt immunity
- Operating temperature -5-100 °C, high temperature electrodes up to 135°C, optional PT1000 temperature probe (model with T indicates temperature probe included).

innoSens 120 pH Electrode	Order No.: 35-0120-00	Measuring range 0-14pH Working temp -5-100°C Max. work pressure 6bar Material Glass Electrolyte Polymer	Diaphragm PTFE Diaphragm Diameter/Length 12mm/120mm Threaded PG13.5 Cable length 5m standard Application sewage, >150µS/cm
innoSens 125T pH/T Electrode	Order No.: 35-0125-10	Measuring range 0-14pH Working temp -5-100°C Max. work pressure 6bar Material Glass Electrolyte Polymer	Diaphragm PTFE Diaphragm Diameter/Length 12mm/120mm Threaded PG13.5 Cable length 5m standard Application sewage, >150µS/cm
innoSens 130 pH Electrode	Order No.: 35-0130-00	Measuring range 0-14pH Working temp -5-135°C Max. work pressure 10bar Material Glass Electrolyte Polymer	Diaphragm PTFE Diaphragm Diameter/Length 12mm/120mm Threaded PG13.5 Cable length Purchase separately Application sewage, >50µS/cm
innoSens 145T Pure water pH/T Electrode	Order No.: 35-0145-10	Measuring range 0-14pH Working temp -5-100°C Max. work pressure 6bar Material Glass Electrolyte Gel	Diaphragm Ceramic Diaphragms Diameter/Length 12mm/120mm Threaded PG13.5 Cable length 5m standard Application >0.1µS/cm Pure water
innoSens 150T Hydrofluoric acid resistant PH Electrode	Order No.: 35-0145-10	Measuring range 0-14pH Working temp -5-100°C Max. work pressure 6bar Material Glass Electrolyte Gel	Diaphragm Ceramic Diaphragms Diameter/Length 12mm/120mm Threaded PG13.5 Cable length 5m standard Application 适用于<1000ppm HF
innoSens 160T Chlor-alkali chemical pH/T Electrode	Order No.: 35-0160-10	Measuring range 0-14pH Working temp -5-100°C Max. work pressure 6bar Material Glass Electrolyte Gel	Diaphragm Ceramic Diaphragms Diameter/Length 12mm/120mm Threaded PG13.5 Cable length 5m standard Application >50µS/cm
innoSens 210 ORP Electrode	Order No.: 35-0210-00	Measuring range -2000-2000mV Working temp -5-100°C Max. work pressure 6bar Material Glass Electrolyte Polymer	Diaphragm PTFE Diaphragm Diameter/Length 12mm/120mm Threaded PG13.5 Cable length 5m standard Application sewage

pH/ORP Mounting Accessories

PA-100 Series

JENSPRIMA also provides matching pH/ORP mounting accessories, which can be selected by the user according to the on-site installation requirements.



Order Guide

Order No.	Description
50-0100-00	PA-100 Immersion type Mounting Kit
50-0100-10	PA-110 Electrode cover, CPVC material, PG13.5 to 3/4"NPT
50-0100-12	PA-112 Chucks cover, 316L
50-0100-15	PA-115 Electrode cover, Sidewall Mounting
50-0100-25	PA-125 Flow cell, Acrylic material
50-0100-26	PA-126 Flow cell, Stainless steel material


Conductivity Electrodes


innoSens 320/330

The innoSens range of conductivity electrodes offers durability, reliability and high performance for a wide range of conductivity monitoring applications, from ultrapure water to sewage and wastewater treatment.

Applicable Controllers

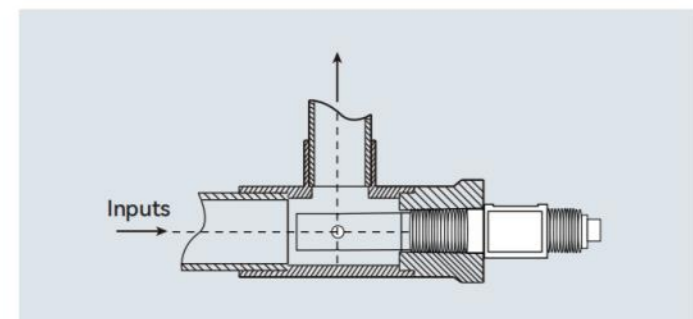
innoCon 6800C Intelligent Conductivity Controller
 innoCon 6501C Basic Conductivity Controller

 <p>Order No.: 35-0320-01</p> <p>innoSens 320-0.01 Conductivity Electrodes</p>	Measuring range 0.01-200.0µS/cm Temperature probe PT1000 Working temp 0-100°C(Optional high temperature electrode) Max. Pressure 6bar Installation Pipe installation Connection method 3/4"NPT Cable length 5m standard Two-stage electrode, 316L material, suitable for pure water, ultrapure water
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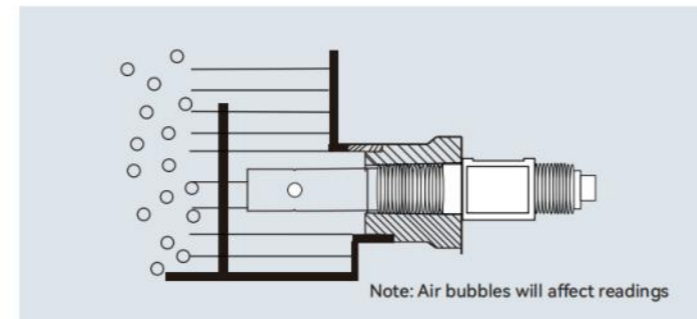
 <p>Order No.: 35-0320-02</p> <p>innoSens 320-0.1 Conductivity Electrodes</p>	Measuring range 0.1-2000µS/cm Temperature probe PT1000 Working temp 0-100°C(Optional high temperature electrode) Max. Pressure 6bar Installation Pipe installation Connection method 3/4"NPT Cable length 5m standard Two-stage electrode, 316L material, suitable for raw water, pure water
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 <p>Order No.: 35-0330-00</p> <p>innoSens 330 Conductivity Electrodes</p>	Measuring range 0-200mS/cm Temperature probe PT1000 Working temp 0-100°C Max. Pressure 6bar Installation Pipe installation Connection method 3/4"NPT Cable length 10m standard TFour-stage electrode, PPS material, suitable for tap water, sewage
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Installation Method (1)



Installation Method (2)




Conductivity Electrodes


innoSens 350


The innoSens range of conductivity electrodes offers durability, reliability and high performance for a wide range of conductivity monitoring applications, from ultrapure water to stock solution measurements.

Applicable Controllers

innoCon 6800C Intelligent Conductivity Controller
 innoCon 6501C Basic Conductivity Controller

 <p>Order No.: 35-0350-01</p> <p>innoSens 350-0.01 Conductivity Electrodes</p>	Measuring range 0.01-200.0µS/cm Temperature probe PT1000 Working temp 0-100°C(Optional high temperature electrode) Max. Pressure 6bar Installation Pipe installation Connection method Chucks Cable length 5m standard Two-stage electrode, 316L material, suitable for pure water, ultrapure water
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 <p>Order No.: 35-0350-02</p> <p>innoSens 350-0.1 Conductivity Electrodes</p>	Measuring range 0.1-2000µS/cm Temperature probe PT1000 Working temp 0-100°C(Optional high temperature electrode) Max. Pressure 6bar Installation Pipe installation Connection method Chucks Cable length 5m standard Two-stage electrode, 316L material, suitable for raw water, pure water
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 <p>Order No.: 35-0350-03</p> <p>innoSens 350 Conductivity Electrodes</p>	Measuring range 0-200mS/cm Temperature probe PT1000 Working temp 0-100°C(Optional high temperature electrode) Max. Pressure 6bar Installation Pipe installation Connection method Chucks Cable length 10m standard Quadrupole electrode, PP/316L material, suitable for medium water, raw liquid, etc.
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Membrane/Micro Dissolved Oxygen Electrode

innoSens 420/428

The innoSens 420 Clark Dissolved Oxygen Electrode is used for DO measurements in polluted wastewater surface waters. innoSens 428 Trace Fluorescence Method Dissolved Oxygen Sensor is based on the principle of fluorescence quenching, does not require membranes and electrolytes, is virtually maintenance free, and is widely used for trace oxygen measurements in bio-pharmaceuticals, brewer's beverages, and boiler de-oxidising equipment.



innoSens 420
Dissolved Oxygen Electrode



innoSens 428
Dissolved Oxygen Electrode

Measurement parameters

Dissolved oxygen in sewage (membrane method)

Measurement parameters

Micro Dissolved Oxygen (Fluorescence Method)

Applications

Municipal sewage, industrial wastewater, aquaculture

Applications

Biopharmaceuticals, boiler deaerators

Applicable Controllers

innoCon 68000 Intelligent Dissolved Oxygen Controller

Applicable Controllers

innoCon 6800TO Dissolved Oxygen Controller

Features

- Adopts Clark measurement technology
- Built-in temperature probe compensation
- High accuracy and stability
- Integral membrane head assembly for easy replacement
- Low purchase cost

Features

- Fluorescence quenching measurement technology
- Built-in temperature probe compensation
- 316L stainless steel housing
- No membrane or electrolyte required
- Stainless steel flow cell as standard

Technical parameter	
Measuring range:	0-200.00mg/L, 0-200%
Temperature compensation:	PT1000、NTC 10K
Working temperature:	0-60°C
Maximum pressure:	atmospheric pressure
Flow rate requirements:	≥0.03m/s
Material:	pps, Gold/silver electrode
Installation:	Submerged
Connection thread:	3/4" NPT
Cable length:	10m Standard
Protection class:	IP68
Application:	Sewage treatment, Surface water
Order No.	35-0420-00

Technical parameter	
Measuring range:	0-2000.0ug/L (ppb)
Detection limit:	0.5ppb
Resolution:	0.1ppb
Accuracy:	±0.5ppb or 2%, Take a large value
Working temperature:	0-50°C
Maximum pressure:	12bar
Material:	316L stainless steel
Installation:	Matching flow cel
Cable length:	10m Standard
Protection class:	IP68
Application:	Power plant, Boiler water
Order No.	35-0428-00

Fluorescence Dissolved Oxygen Electrode

innoSens 450/451

The innoSens450 and innoSens451 fluorescence dissolved oxygen sensors are based on the principle of fluorescence inactivation, require no membranes or electrolyte, are virtually maintenance-free, have excellent performance, are easy to use, do not consume oxygen, and are widely used for DO monitoring of aeration basins in municipal wastewater treatment plants.



innoSens 450
Dissolved Oxygen Electrode



innoSens 451
Dissolved Oxygen Electrode

Measurement parameters

Dissolved oxygen, Temperature

Measurement parameters

Dissolved oxygen, Temperature

Applications

Wastewater treatment, Surface water, Aquaculture

Applications

Wastewater treatment, Surface water, Aquaculture

Applicable Controllers

innoCon 6800D Digital Dissolved Oxygen Controller

Applicable Controllers

innoCon 6800D Digital Dissolved Oxygen Controller

Features

- Uses fluorescence quenching measurement technology
- No membranes or electrolyte required
- No calibration and maintenance required
- Only need to replace fluorescent cap (cycle 1~2 years)

Features

- Adopts fluorescence quenching measurement technology
- Built-in temperature probe compensation
- 316L stainless steel housing
- No membrane or electrolyte required
- Stainless steel flow cell as standard

Technical parameter	
Measuring range:	0.00-20.00ppm/0-200%
Resolution:	0.01ppm
Accuracy:	±0.1ppm or ±1%
Response time:	<60seconds
compensation:	Built-in NTC temperature probe
Working temp:	0-60°C
Flowrate:	No requirement
Material:	316L
Dimensions:	Diameter: 33.5mm, Length: 197mm, Connection: 3/4" BSP
Cable:	10m Standard
Max Pressure:	5bar
Protection Class:	IP68
Order No.	35-0450-00

Technical parameter	
Measuring range:	0~20.00mg/L或0~200%
Resolution:	0.01mg/L
Accuracy:	<±0.3mg/L, <±0.3mg/L
Response time:	<45s
compensation:	Standard RS485 Modbus RTU protocol
Working temp:	Built-in NTC temperature probe
Flowrate:	0-50°C
Material:	Submerged installation
Dimensions:	10m Standard
Cable:	POM+316L
Max Pressure:	190mm, Ca. 0.3kg
Protection Class:	IP68
Order No.	35-0451-10

Fluoride ion/Chlorine ion Electrode

innoSens 510/520

JENSPRIMA's ion electrodes have a separate electrode design, which allows for the replacement of worn out parts of the electrode (electrode fluid and cap). This allows the electrodes to be used repeatedly with regular replacement of the cap and electrode fluid, thus achieving a service life that cannot be achieved with similar products in the market.

Measurement parameters

Fluoride ions, chloride ions

Applications

Municipal wastewater, boiler water, drinking water, outfalls

Applicable Controllers

innoCon 6800I Intelligent Ion Concentration Controller



Note: If the electrode has been out of the water for approximately 30 minutes, then it is recommended that the electrode be put back into the water to regenerate for 1 hour.

Order Guide

Order No.	Description
35-0500-10	innoSens reference
35-0510-00	innoSens 510 Fluoride ion electrode, cable to be supplied separately
35-0520-00	innoSens 520 Chlorine ion electrode, cable to be supplied separately
35-0100-05	S8 connector cable, 5m
50-0711-00	PA-711 Flow cell, Acrylic

innoSens 510 Fluoride ion Electrode

The fluorine ion-selective electrode is a solid-state thin-film electrode made primarily from LaF3 single crystals with a special polymer periphery.

Technical parameter	
Measuring parameter:	Fluorine ion concentration
Measurement range:	0.1-10000mg/L
Slope:	57±2mV/p F-ion
Response time:	<30s
Stability:	±0.3mV(30min), ±1mV(24h)
Interfering ions:	OH-(pH>8), 形成HF以及HF2-(pH<5) Interfering ion to fluorine ion ratio produces 10% error
pH applicable range:	5-8pH
Operating temperature:	0-40°C
Sensitive film:	LaF3 single crystal
Housing material:	black plastic
Dimensions:	12mm diameter, 100mm length
Mounting:	Flow-through tank/immersion mounting, optional reference electrode required

innoSens 520 Chlorine ion Electrode

The chloride ion selective electrode is a solid film electrode made of a high strength AgCl/Ag2S pressed solid, which is then sealed in a plastic body with resin.

Technical parameter	
Measuring parameter:	Chlorine ion concentration
Measurement range:	5-35000mg/L
Slope:	57±2mV/p Cl-ion
Response time:	<30s
Stability:	±0.3mV(30min), ±1mV(24h)
Interfering ions:	OH-/Cu2+/Br-/I-/CN-/Ag+/Hg2+/Pb2+/Ti+ Produces 10% error at a certain ratio
pH applicable range:	1-10pH
Operating temperature:	0-50°C
Sensitive film:	AgCl/Ag2S
Housing material:	black plastic
Dimensions:	12mm diameter, 100mm length
Mounting:	Flow cell mounting, optional reference electrode required

Ammonia/Nitrate Electrode

innoSens 550/560

The innoSens 550 ammonia nitrogen electrode uses the ion-selective electrode method to measure the concentration of ammonia nitrogen in water. The ammonia ion-selective electrode is used to directly detect ammonium ions in the water environment to determine the concentration of ammonia nitrogen. The ammonia nitrogen sensor uses a pH electrode as a reference electrode, resulting in better stability. The sensor is also susceptible to interference from potassium ions, so when the potassium ion concentration in water is high, an optional potassium ion electrode is available for automatic compensation.

The innoSens 550 ammonia sensor consists of an ammonium ion electrode, a potassium ion electrode (optional), a pH electrode and a temperature electrode in a single sensor, which can be used to correct for each other and for multiple parameters at the same time.



Measurement parameters

NH4-N: 0.1-1000 mg/L
 pH: 5-10 pH
 Temperature: 0-40°C
 Accuracy:
 NH4-N: ±5% of measured value
 pH: ±0.1 pH
 Temperature: ±0.2°C
 Repeatability: ±3% of measured value
 Response time: <2min
 Lifetime: 6 months for diaphragm, 3 months for electrolyte
 Operating temperature: 2-40°C
 Protection class: IP68
 Dimensions: φ62mm x 353mm

Sensor installation

Upon receipt of the sensor the user should first check the sensor for external damage and consult a jensprima technical engineer if you have any corresponding queries.

Note: To ensure that the electrodes are not affected by logistics, the electrodes and sensors are packed separately unless otherwise specified by the user. In this case the user must install the sensor according to the following procedure.

Order Guide

Order No.	Description
35-0550-00	innoSens 550 Ammonia Electrode, Cable 10m
35-0560-00	innoSens 560 Nitrate Electrode, Cable 10m
35-0550-10	innoSens 550 Ammonia/Potassium Ion Electrode, Cable 10m
35-0560-10	innoSens 560 Nitrogen/Chloride Electrode, Cable 10m
35-0570-00	Ammonia/ Nitrate Electrode, Cable 10m

The innoSens 560 nitrate and nitrogen electrode uses an ion-selective electrode method to measure nitrate and nitrogen concentrations in water, directly detecting nitrate concentrations in the aqueous environment with a nitrate ion-selective electrode. The nitrate sensor uses a pH electrode as a reference electrode to achieve better stability. The sensor is also susceptible to interference from chloride ions, so an optional chloride ion electrode is available for automatic compensation when the chloride concentration in the water is high.

The innoSens 560 nitrate and nitrogen sensor consists of a nitrate ion electrode, a chloride ion electrode (optional), a pH electrode and a temperature electrode in a single sensor, which can be corrected for each other and for multiple parameters.



Measurement parameters

NO3-N: 0.1-3000 mg/L
 PH: 3-10 pH
 Temperature: 0-40°C
 Accuracy:
 NO3-N: ±5% of measured value
 pH: ±0.1 pH
 Temperature: ±0.2°C
 Repeatability: ±3% of measured value
 Response time: <2min
 Lifetime: 6 months for diaphragm, 3 months for electrolyte
 Operating temperature: 2-40°C
 Protection class: IP68
 Dimensions: φ62mm x 353mm

Installation steps:

1. Unscrew the electrode protection cover and the fixing cover.
2. Remove the electrode holder from the sensor casing.
3. Screw the electrodes into the corresponding threaded holes with a spanner and tighten to prevent leakage.
4. Write down the corresponding numbers of the different electrodes (the sensors are set at the factory according to 1 → ammonia nitrogen and 2 → pH).
5. Put the electrode holder back into the sensor casing and tighten the fixing cover and the electrode protection cover.
6. Place the electrode holder back into the sensor casing and tighten the fixing cover and electrode protection cover.
7. The user can set it via the controller.

When the sensor is used for the first time, or if it has been out of the water for more than 30 minutes, leave the sensor in the water sample for more than 60 minutes and take a reading when the value has stabilised.

Residual Chlorine/Chlorine Dioxide/Ozone Electrodes

innoSens 710

The innoSens 710 electrode is based on the double platinum constant voltage measuring principle, where the measuring and reference electrodes maintain a constant potential at which different measured constituents produce different current intensities. During the measurement process, Cl₂ or HClO is consumed, so the current intensity generated is related to the concentration of residual chlorine in the water. When the pH is in the range 6-8, the measurement signal decreases with increasing pH and can be compensated for by entering the pH value on site. Chlorine dioxide and ozone can also be measured using the constant voltage method (innoCon 6800CL intelligent controller only).

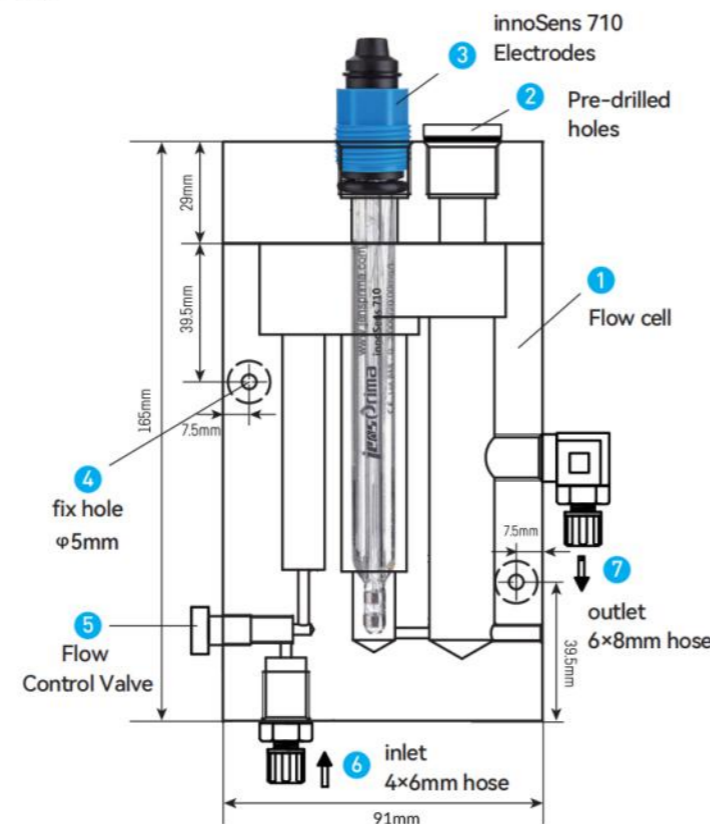
Applicable Controllers

innoCon 6800CL intelligent residual chlorine/chlorine dioxide/ozone controller
innoCon 6501CL basic residual chlorine controller

Features

- The latest wide power input, super anti-interference design
- No colourimetric reagents required
- No need to change diaphragms and electrolyte
- Easy to install and low maintenance costs
- Built-in earth wire to prevent electromagnetic interference in the field
- PA-711 flow cell maintains constant flow

Technical parameter	
Product type:	innoSens 710
Measuring range:	0-2.000/0-20.00ppm (mg/L)
Resolution:	0.001/0.01ppm
Accuracy:	±2%f.s.
Temperature compensation:	PT1000 (optional)
pH compensation:	0-60°C
Operating temperature:	Manual pH compensation
Recommended flow rate:	10-30l/h
Electrode material:	Glass
Threaded connection:	PG13.5
Cable length:	3m as standard, 10m optional
Size:	φ12mm×120mm



Order Guide

Order No.	Description
37-0710-00	innoSens 710 Double platinum electrodes, cable 3m
37-0710-10	innoSens 710 Double platinum electrodes, cable 10m
37-0710-20	PT1000 Temperature probe, PA-711 for flow cell
50-0711-00	PA-711 Flow cell, Acrylic



Residual Chlorine/Total Chlorine/Ozone Electrodes

innoSens 730/740/750

JENSPRIM offers disinfectant detection sensors based on the Amperometric Overlay Principle: InnoSens 730 Residual Chlorine Electrode, innoSens 740 Total Chlorine Electrode, innoSens 750 Ozone Electrode for processes such as purified/drinking water/hospital wastewater, with simultaneous pH measurement as an option.

Applicable Controllers

Flumsys 10TC-FP Dual Channel Controller

innoSens 730
Coated Residual Chlorine Electrodes

Order No.: 35-0730-01
35-0730-02

Measuring parameter:	Free chlorine
Measuring range:	0-20.00mg/L, 0-200.00mg/L
Resolution:	0.001/0.01mg/L
pH range:	4.0-9.0
Working temperature:	0-45°C
Pressure:	Max.3bar
Flow rate:	250~500ml/min
Response time:	Initial polarisation time about 2 hours

Response time: Initial polarisation time about 2 hours

innoSens 740
Coated Total Chlorine Electrodes

Order No.: 35-0740-01
35-0740-02

Measuring parameter:	Total chlorine
Measuring range:	0.005-2.000/0-20ppm
Resolution:	0.001/0.01mg/L
pH range:	4.0-12.0
Working temperature:	0-45°C
Pressure:	Max.3bar
Flow rate:	250~500ml/min
Response time:	Initial polarisation time about 2 hours

Amperometric overlay method for sewage, medical wastewater, slaughtering wastewater

innoSens 750
Coated Ozone Electrodes

Order No.: 35-0750-01
35-0750-02

Measuring parameter:	Ozone
Measuring range:	0-0.500/0-2.000
Resolution:	0.001
pH range:	2.0-11.0
Working temperature:	0-45°C
Pressure:	Max.1bar
Flow rate:	250~500ml/min
Response time:	Initial polarisation time about 1 hours

Ampere coating method for drinking water, mineral water, process water



Turbidity/Suspension Sensors


innoSens 810T/815T/825T

JENSPRIMA turbidity sensors have been developed based on the 90° light scattering principle in accordance with EN ISO 7027. When light passes through a solution, part of it is absorbed and scattered, and the other part passes through the solution, which makes it possible to measure the turbidity/suspended matter of a water sample by measuring the intensity of the scattered light from the particles in the water.

Applicable Controllers

innoCon 6800T-1 Touch Screen Controller
innoCon 6800T-2 Touch Screen Controller

innoSens 810T
Turbidity
Suspension
Sensors



Order No.: 35-0810-02

Measuring range:	0-4000NTU
Resolution:	0.1NTU, 0.1mg/L, 0.1ppm
Accuracy:	±2%f.s.
Size:	42mm diameter, 120mm length
Threaded connection:	1" GAS
Cable:	10m as standard
Pressure:	Max.4bar
Operating temperature:	0-60°C
Protection class:	IP68
90° light scattering technology, 316L/PVC material	

innoSens 815T
Turbidity
Suspension
Sensors



Order No.: 35-0815-00

Measuring range:	0-4000NTU
Resolution:	0.01/0.1NTU
Accuracy:	±3%
Automatic cleaning:	Scraping brush
Size:	42mm diameter, 160mm length
Threaded connection:	3/4" NPT
Cable:	10m as standard
Pressure:	Max.3bar
Operating temperature:	0-45°C
Protection class:	IP68
90° light scattering technology, 316L/PVC material, automatic scraping function	

innoSens 825T
Turbidity
Suspension
Sensors



Order No.: 35-0825-00

Measuring range:	0-100NTU
Resolution:	0.001/0.01NTU
Accuracy:	±3%
Automatic cleaning:	Scraping brush
Size:	42mm diameter, 160mm length
Threaded connection:	3/4" NPT
Cable:	10m as standard
Pressure:	Max.3bar
Operating temperature:	0-45°C
Protection class:	IP68
90° light scattering technology, 316L/PVC material, automatic scraping function	



Low Range Turbidity Sensor

innoSens 850T

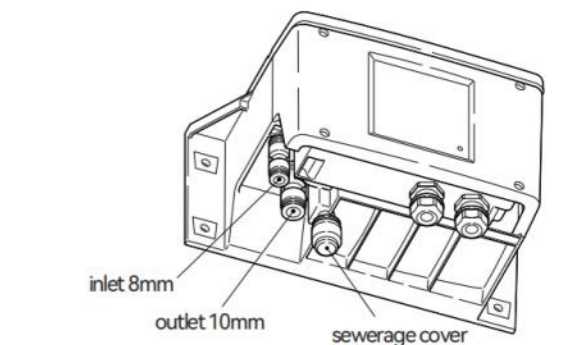
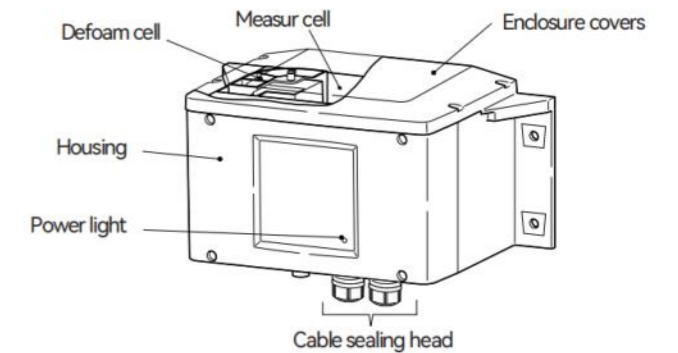
The innoSens 850T low range turbidity sensor can measure ultra-low range turbidity, with built-in anti-foam structure and anti-condensation function to ensure stable and high-precision measurement. With LED light source, no need to replace within ten years, widely used in tap water outlets, engineering drainage outlets and other types of clean water quality turbidity online monitoring.

Applicable Controllers

innoCon 6800T-5 low range online turbidity analyser
Flumsys 10TC-FT Dual Channel Residual Chlorine/Turbidity Analyser

Technical parameter

Product type:	innoSens 850T
Measuring principle:	90° scattered light
Measuring range:	0.0001-100NTU (FTU)
Resolution:	0.0001/0.001NTU (FTU)
Accuracy:	±2% reading or ±0.02NTU, take largest
Light source:	LED
Light source life:	>7 years
Anti-foaming function:	Yes
Anti-fogging function:	Yes
Automatic sewage function:	Option
Response time:	<30s
Inlet water flow:	100-200ml/min
Working temperature:	0-50°C
Protection class:	IP65
Installation:	wall mounted
Dimension:	160×260×150mm
Weight:	Ca.2kg



Note: Always tighten the fixing screws on the housing cover. If the screws are loose, the turbidity may not be measured correctly due to light entering the measuring tank or dust in the measuring water.

Order Guide

Order No.	Description
33-6800-35	innoSens 850T Highly Accurate Turbidity Sensor

Electromagnetic Flowmeter

innoMag 300

The innoMag 320 uses advanced technology and intelligent measurement algorithms to measure not only low conductive liquids, but also highly corrosive liquids such as acids, alkalis, salts, etc. The innoMag 320 electromagnetic flowmeter is available in a wide range of sensors and lining materials for potable water and wastewater treatment, foodstuffs, chemical industry, irrigation, iron and steel mills, paper mills, and most other operating environments.

Measurement parameters

Instantaneous flow , cumulative flow

Applications

Water Treatment, Steel/Paper Mill, Chemical Industry, Mining and metallurgy



Features

- Measurement is independent of pressure, temperature, density and flow rate.
- Bi-directional measurement is possible
- High accuracy
- Easy operation and installation
- No piping pressure loss
- Can be used for solid-containing liquid media (depending on operating conditions)

Technical parameter

Model:	innoMag 300
Structure type:	S integrated type, L split type
Caliber range:	DN10~DN2000
Measuring range:	0.2m ³ /h~30000m ³ /h
Accuracy:	±0.5%
Repeatability:	±0.1%
Display:	backlight liquid crystal display
Installation:	flange connection can be customized clamping type
Medium conductivity:	≥10μS/cm
Electrode material:	16 stainless steel, Hastelloy C, tantalum, titanium
Lining material:	PTFE: DN10 ~ DN1000, rubber: DN50 ~ DN2000
Shell material:	controller: aluminum, sensor: carbon steel, stainless steel
Temperature :	PTFE : -40~150°C, Rubber : -10~80°C
Ambient temperature:	-20~70°C
Signal output:	4~20mA, Max. 750Ω, pulse output, frequency output
Communication protocol:	MODBUS (standard), HART (optional)
Power supply:	85~260VAC or 24VDC

Order Guide

innoMag 300	□	□	□	□	□	□	□
Pipe Diameter mm	Combination S Integrate L Remote	Electrode S 316L B Hastell B C Hastell C D Tantalum T Titanium P Platinum	Installation 1 Flange type 2 Clamping type 3 Insertion type	Lining F PTFE X Neoprene A Polyurethane P PFA	Interface 1 No communication 2 RS485 Modbus 3 Hart 4 Other	Power supply 1 1~220VAC 2 124VDC 3 Hart 4 Other	Max. Current

Ultrasonic Flowmeter

innoMag 400

The PACON 2501 on-line residual chlorine analyser is an accurate, cost-effective and low-maintenance instrument for continuous on-line monitoring of residual chlorine. It detects the concentration of residual chlorine using the DPD colourimetric method and automatically adds reagents for colourimetric measurement, making it suitable for residual chlorine measurement during chlorination and disinfection and for monitoring residual chlorine concentrations in drinking water networks. Selecting total chlorine reagent, total chlorine concentration can be monitored online.

Measurement parameters

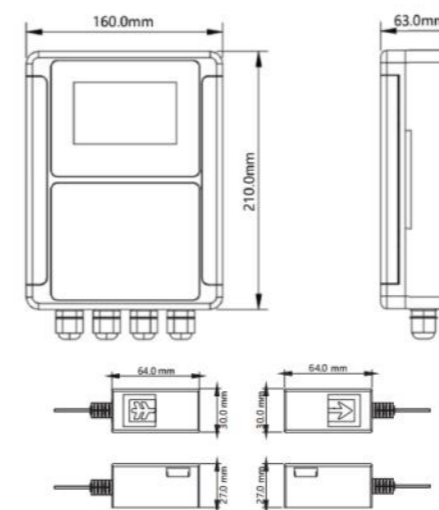
Instantaneous flow , Cumulative flow

Applications

Process Water, Boiler water, Drinking Water, Circulating water, Cooling Water

Features

- The latest wide power input, super anti-interference design
- High accuracy and improved tolerance of air bubbles in the measuring diameter.
- Large four-line LED display for clearer and more comprehensive display.
- Longer service life of the membrane keypad and more comfortable feel of the keypad.
- Sensor IP68 protection grade
- Unique flip cover design, installation of hidden screws for better appearance.



Overall configuration



Technical parameter

Model:	innoMag 400
Flow range:	0.03~12m/s, forward and reverse measurement
Accuracy:	±1% of measured value
Repeatability:	0.2%
Pipe diameter range:	DN25~DN1200mm
Temperature range:	Controller: -20~60 °C Sensor: -40°C~80°C (room temperature) Sensor: -40°C~130°C (high temperature) Sensor: -40 °C ~ 180 °C (special high temperature)
Fluid type:	tap water, sewage, seawater, acid and alkali liquids, beer, oil and other conduction Ultrasonic single uniform liquid
Pipe material:	Pipe material: stainless steel, PVC, glass fiber reinforced plastic, carbon steel and all other dense pipeline. Allowed to have a liner
Power supply:	90~260VAC, 50/60Hz, optional 24VDC
Display:	LCD display
Output:	1 channel 4~20mA output 1 pulse output, pulse width 6~1000mS 1 relay output
Communication:	RS485 Modbus
Data storage:	SD card timed to store the set parameters and measurement results (optional)
Protection level:	controller: IP65 Sensor: IP68
Installation:	Controller: wall mounted Sensor: external damp type (V method, Z method)

Order Guide

Order No.	Description
34-0400-00	innoMag 400 Flowmeter

Pharmacy Applications



Pharmacy Applications



Boiler water Applications



Boiler water Applications



Petrochemical Industry Applications



Power Plant Applications



Municipal Applications



Municipal Applications

