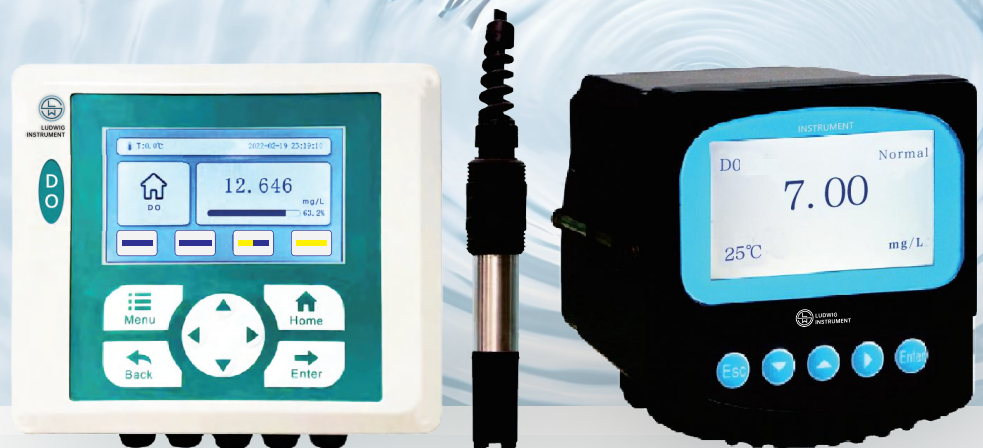


[Please refer to page 7 for selection details](#)

Water Quality Analysis

Membrane Dissolved Oxygen Analyzer DO



Operational Principle

The oxygen electrode uses platinum (Pt) as the cathode, Ag/AgCl as the anode, 0.1M potassium chloride (KCl) as the electrolyte, and a silicone rubber permeation membrane as the breathable membrane. When measuring, a polarization voltage of 0.68V is applied between the anode and cathode. Oxygen is consumed at the cathode through the permeation membrane, and the amount of oxygen passing through the membrane is directly proportional to the concentration of dissolved oxygen in water. Therefore, the limit diffusion current between the electrodes is directly proportional to the concentration of dissolved oxygen in water. The instrument detects this current and converts it into oxygen concentration through calculation. At the same time, the thermistor detects the temperature of the solution and compensates for the temperature of oxygen concentration.

Functional Characteristics

Intelligence: Using a single chip microprocessor to complete dissolved oxygen value measurement, temperature measurement, and compensation;
Human machine dialogue: menu operation structure, users can operate according to the prompts on the screen;
Multi parameter display on the same screen: simultaneously displaying dissolved oxygen value, temperature value, and working status;
Software setting output method: 4-20mA output (485 optional);
Free setting of measurement range and alarm upper and lower limits; Self cleaning switch setting;
Three sets of relay control, adjustable hysteresis control range;
Self set password and service guide: Users can set or modify their own password to prevent unauthorized personnel from entering and causing misoperation;
Provide technical support and after-sales service contact methods for users.

Product Application

Widely used for continuous monitoring of dissolved oxygen, saturation, oxygen partial pressure, and temperature in solutions such as thermal power, chemical fertilizers, metallurgy, environmental protection, pharmaceuticals, biochemistry, food, and tap water.

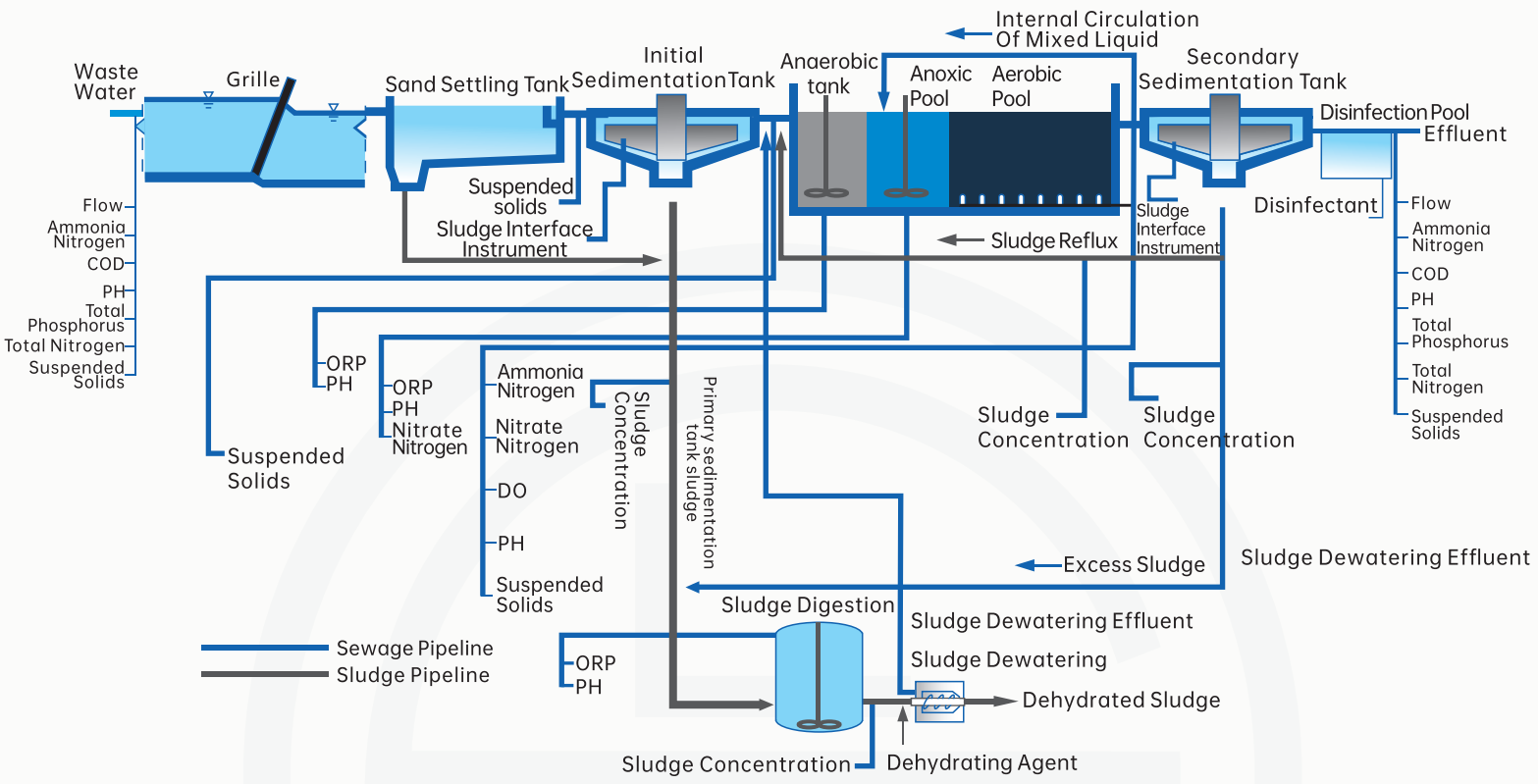
Product Model

Model	DO	
Product Diagram		
Display	4.3-inch LCD color screen	3.2-inch LCD screen
Measuring range	Dissolved oxygen: 0-20mg/L	Dissolved oxygen: 0-20mg/L
Measurement accuracy	Dissolved oxygen: ± 0.2 mg/L, temperature: ± 0.5 °C	Dissolved oxygen: ± 0.2 mg/L, temperature: ± 0.5 °C
Resolving power	0.001/0.01(Depending on the electrode)	0.001/0.01(Depending on the electrode)
Isolation output current	Two circuits 4-20mA (load resistance<800 Ω)	Two circuits 4-20mA (load resistance<800 Ω)
Communication interface	RS-485 Modbus standard communication protocol	RS-485 Modbus standard communication protocol
Two sets of relay contacts	3A 240VAC,6A 28VDC or 120VAC	3A 240VAC,6A 28VDC or 120VAC
Power supply	85-260VAC/50-60Hz or 24VDC	85-260VAC/50-60Hz or 24VDC
Power	≤ 3 W	≤ 3 W
Quality	0.82kg	0.5kg
External dimensions	180×157×84.5mm	Disk mounted (embedded), hole size: 92 x 92mm
Installation opening	Plate mounted 138×138mm(Wall mounted)	96×96×130mm (Disk mounted watch)
Usage conditions	Temperature 0-45 °C, humidity not exceeding 85%, no electromagnetic field interference	Temperature 0-45 °C, humidity not exceeding 85%, no electromagnetic field interference
Electrode selection	Digital signal electrode	Analog signal electrode
Data function	Data storage, operation logs, Bluetooth printing	-

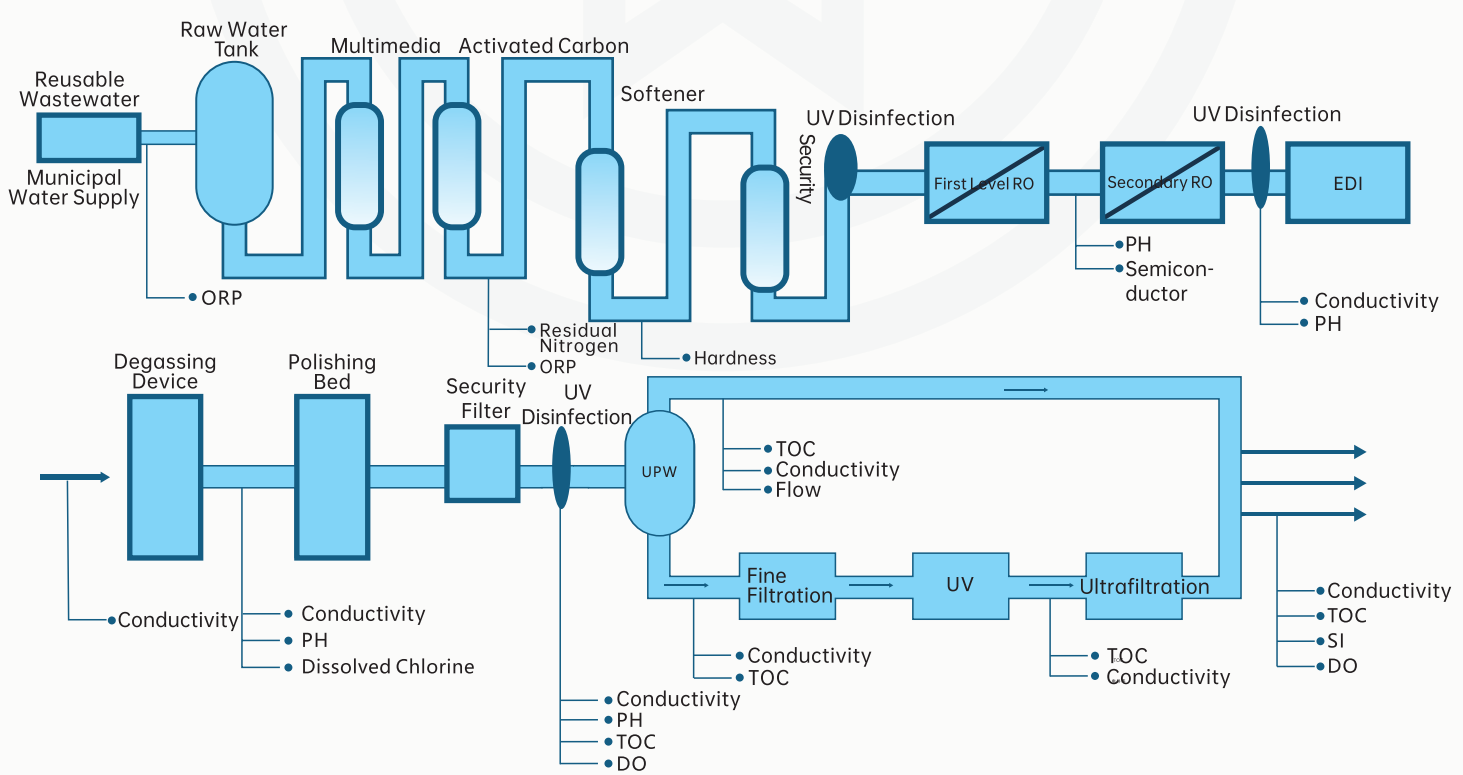
Product Model

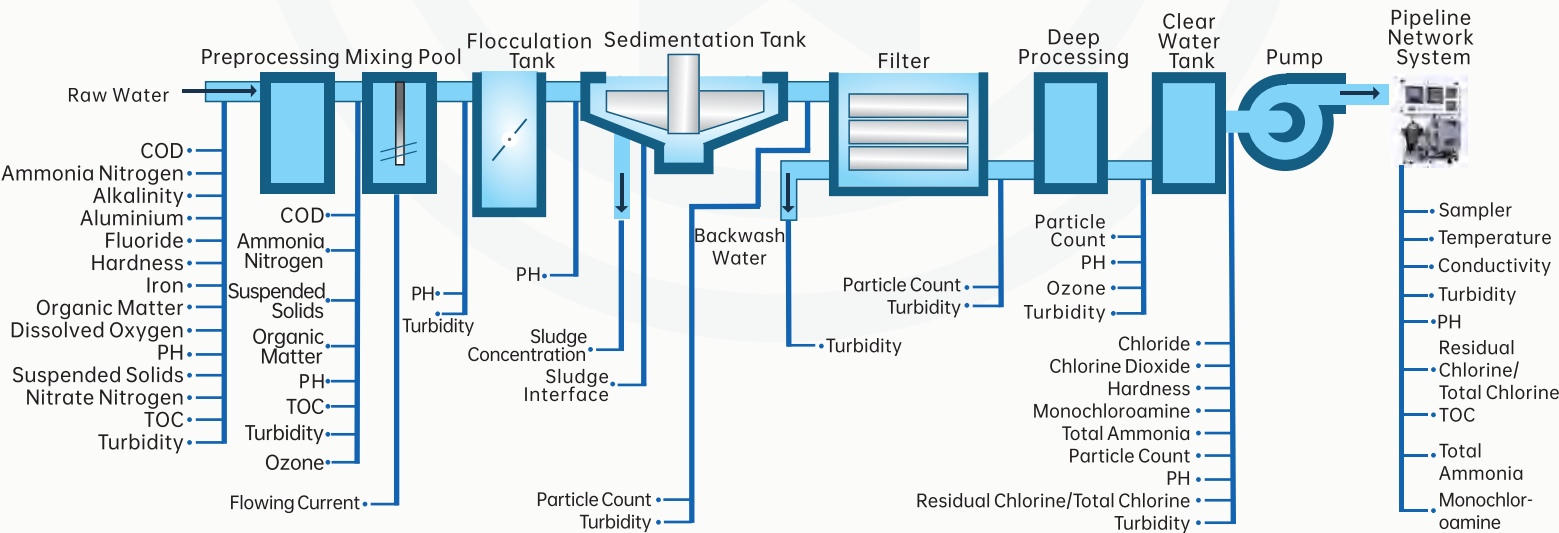
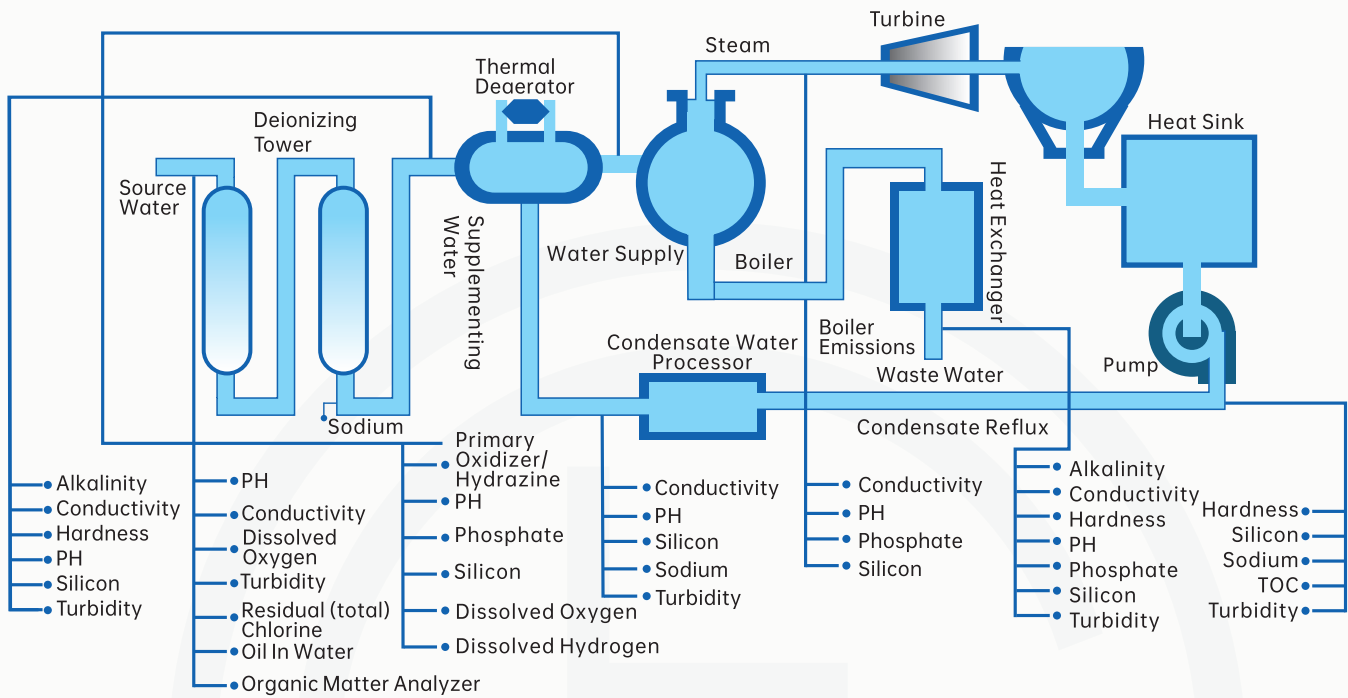
Model	DO-C1 Membrane Electrode	DO-C2 Digital Quantity Electrode
Product Diagram		
Measuring range	0-20mg/l	0-20mg/l
Temperature range	0-60°C	0-60°C
Power supply	-	12-24VDC
Output signal	-	RS485
Temperature compensation type	NTC2252, NTC10K PT1000, PT100	-
Liquid receiving material	PPS, 304	PPS
Installation interface	Up and down NPT3/4	Up and down NPT3/4
Electrode withstand voltage	0.3Mpa	0.3Mpa
Applicable scenarios	Wastewater treatment, aquaculture, surface water, etc	Surface water, seawater, aquaculture, etc

Sewage Treatment Process Diagram

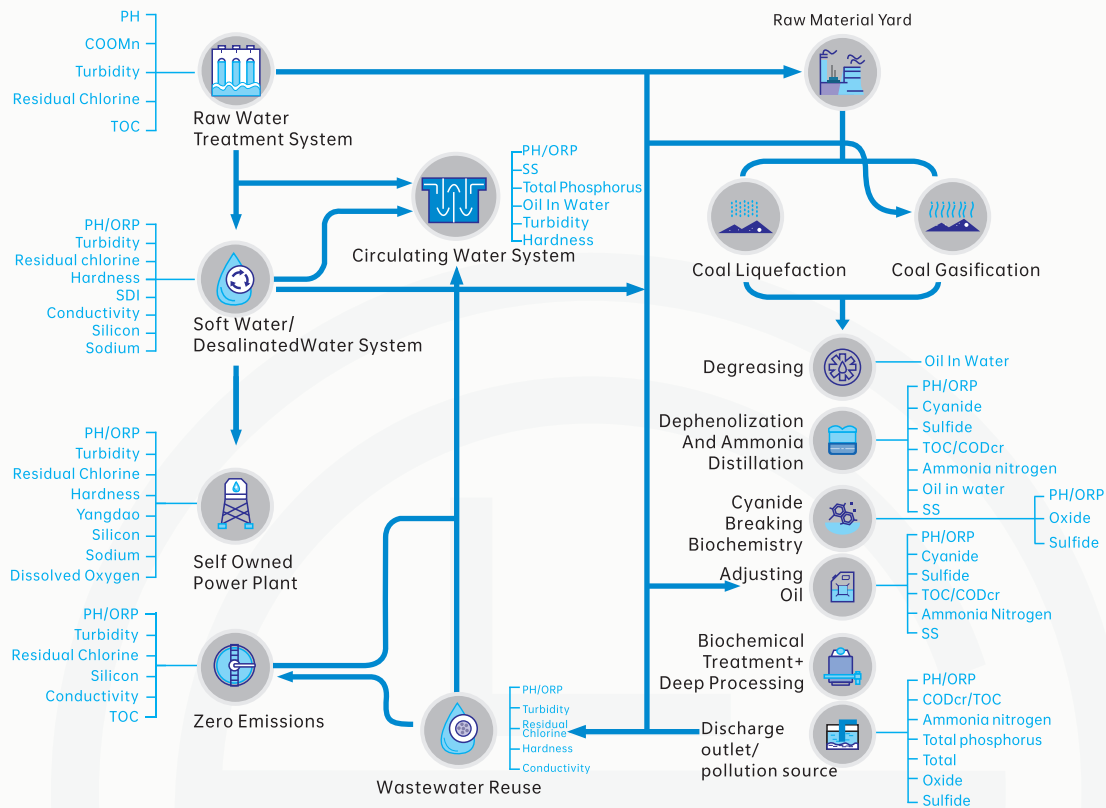


Electronic Industry Water/Wastewater Reuse Process and Water Quality Monitoring Plan



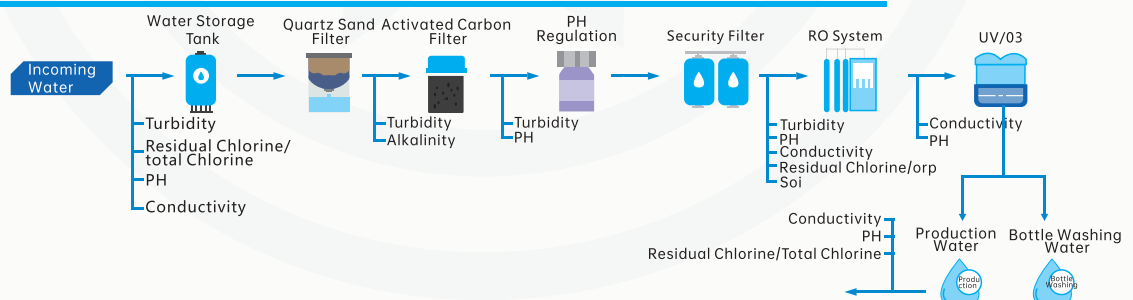


Petrochemical Environmental Water Treatment Process Diagram

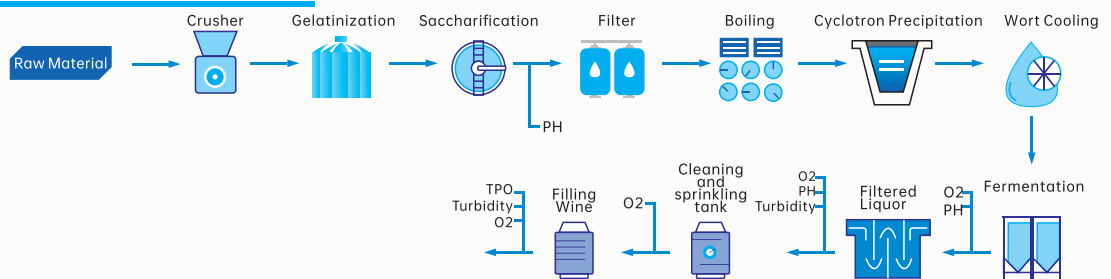


Wastewater Treatment Process And Water Quality Monitoring Plan For The Beer And Beverage Industry

Process Flow Of Beer Beverage Raw Water Pretreatment



Beer Water Usage Process



DO Selection Composition

Selection example DO-

C1	A	E	R	K	O	C	A	H	F
1	2	3	4	5	6	7	8	9	10

1. Electrode type	C1	Membrane electrode
	C2	Digital quantity electrode
	T()	Other electrodes
2. Display screen size	A	4.3-inch LCD color screen
	B	3.2-inch LCD screen
3. Installation form	E	Split type
4. Measurement range	R	Dissolved oxygen: $\pm 0.2\text{mg/LF} \cdot \text{S}$; Temperature: $0-60\text{ }^\circ\text{C}$
	T()	Other measurement range
5. Accuracies	K	Dissolved oxygen: $\pm 0.2\text{mg/LF} \cdot \text{S}$; Temperature: $\pm 0.5\text{ }^\circ\text{C}$
	T()	Other accuracies
6. Output signal	O	4-20mA
	P	4-20mA+RS485
	Q	4-20mA+RS232
	T()	Other output signal
7. source	C	24VDC
	D	220VAC
8. Electrode material	A	PPS
	B	PPS+304
	T()	Other material
9. Cable length	H	10m
	I	5m
	G	15m
	T()	Other length
10. Protection level	E	IP65
	F	IP68
	T()	Other protection level

Explanation:

The DO-CI dissolved oxygen analyzer adopts a membrane electrode, a 4.3-inch LCD color screen, and is installed in a split type. The measurement range of dissolved oxygen is $\pm 0.2\text{mg/LF} \cdot \text{S}$; Temperature: $0-60\text{ }^\circ\text{C}$, precision dissolved oxygen $\pm 0.2\text{mg/LF} \cdot \text{S}$; Temperature $\pm 0.5\text{ }^\circ\text{C}$, output signal 4-20mA, power supply 24VDC, electrode material PPS, cable length 10m, protection level IP68.

Product certification

Compliance and approval; The Ludwig water quality analyzer meets key standards and certifications for process measurement technology; To ensure the highest reliability in such settings;