

Please refer to page 7 for selection details

## Water Quality Analysis

# Fluorescence Dissolved Oxygen Analyzer DO-C3



### Operational Principle

The fluorescence method dissolved oxygen probe consists of three parts: an optical path system, a fluorescence sensitive film, and an optical detection system. After the probe is inserted into the test medium, the oxygen in the medium immediately diffuses into the organic silicon molecular layer and quickly reaches equilibrium. Inject modulated blue light onto the fluorescent layer, and the fluorescent molecules produce red fluorescence. Fluorescent molecules are quenched when they encounter oxygen, and the fluorescence intensity and response time change with the oxygen content. Determine oxygen content by detecting changes in fluorescence response time.

### Functional Characteristics

**Intelligence:** Using a single chip microprocessor to complete dissolved oxygen value measurement, temperature measurement, and compensation;

**Human machine dialogue:** The menu operation is simple, and users can operate it 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:** The software selects 0-10mA or 4-20mA output;

**Free setting of measurement range and alarm upper and lower limits;** Upper and lower limit exceeding alarm prompt;

**Two 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.

Chinese and English menus are optional;

Can install independent storage cards with data recording, storage, and export functions;

### Product Application

Widely used in wastewater treatment, purified water, circulating water, boiler water and other systems, as well as in processes such as electronics, electroplating, chemistry, food, aquaculture, pharmaceuticals, etc., it performs excellently in large-scale sewage treatment plants, industrial process monitoring, and other applications.

## Product Model

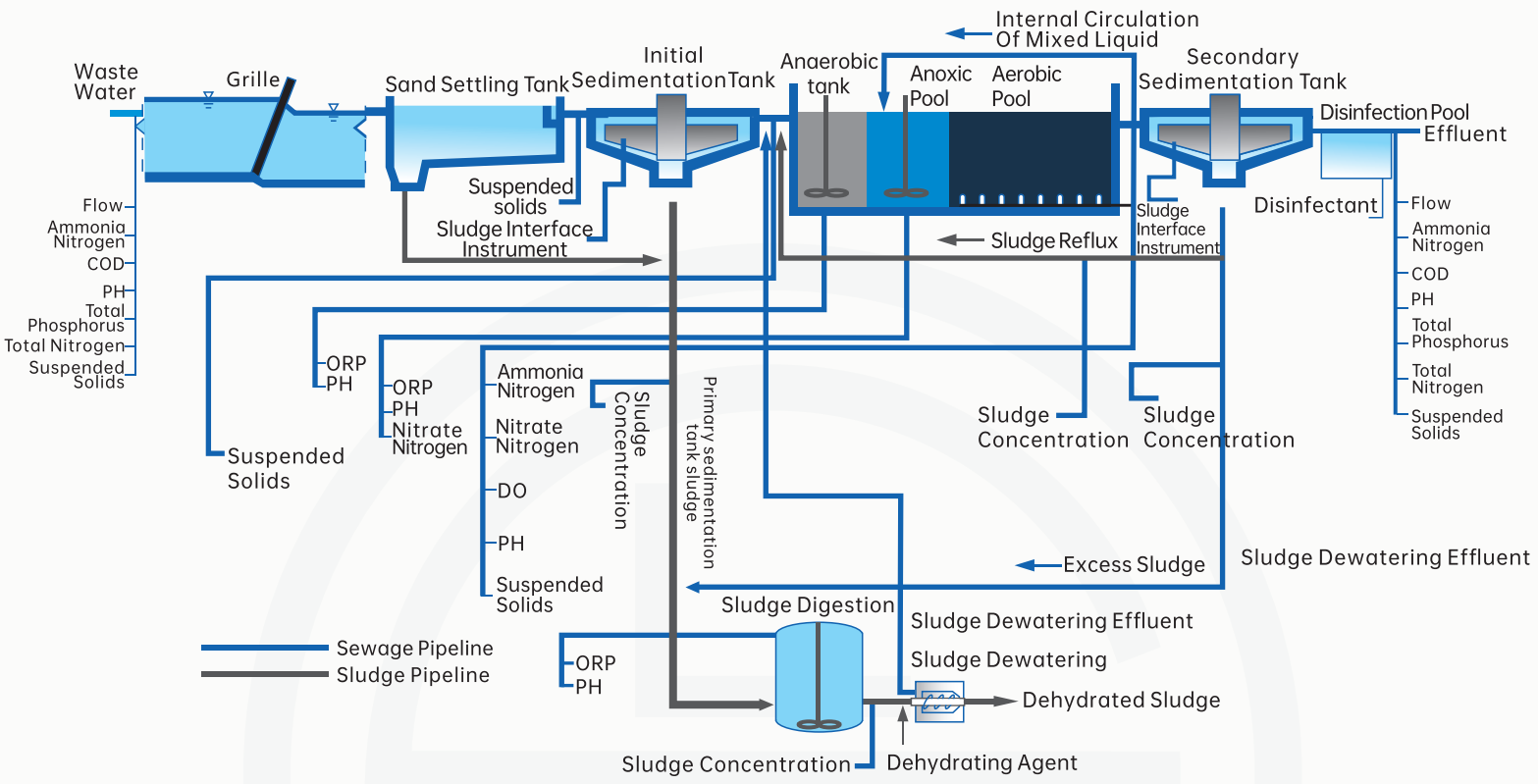
Model	DO-C3	
Product Diagram		
Display	4.3-inch LCD color screen	3.2-inch LCD screen
Measuring range	Dissolved oxygen: 0-20mg/L	Dissolved oxygen: 0-20mg/L
Measurement accuracy	Dissolved oxygen: $\pm 0.2$ mg/L, temperature: $\pm 0.5$ °C	Dissolved oxygen: $\pm 0.2$ mg/L, temperature: $\pm 0.5$ °C
Resolving 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 $\Omega$ )	Two circuits 4-20mA (load resistance<800 $\Omega$ )
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	$\leq 3$ W	$\leq 3$ 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	-



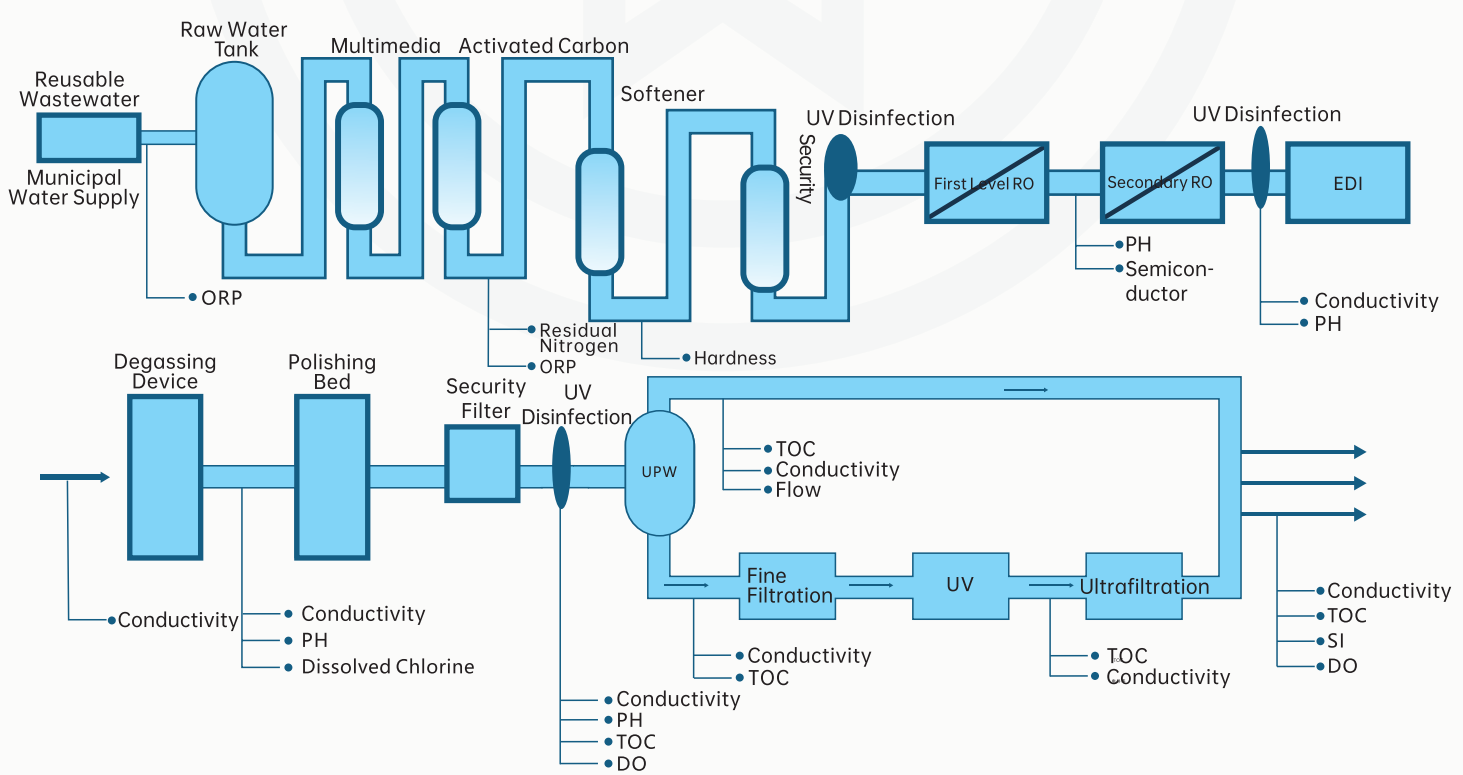
## Product Model

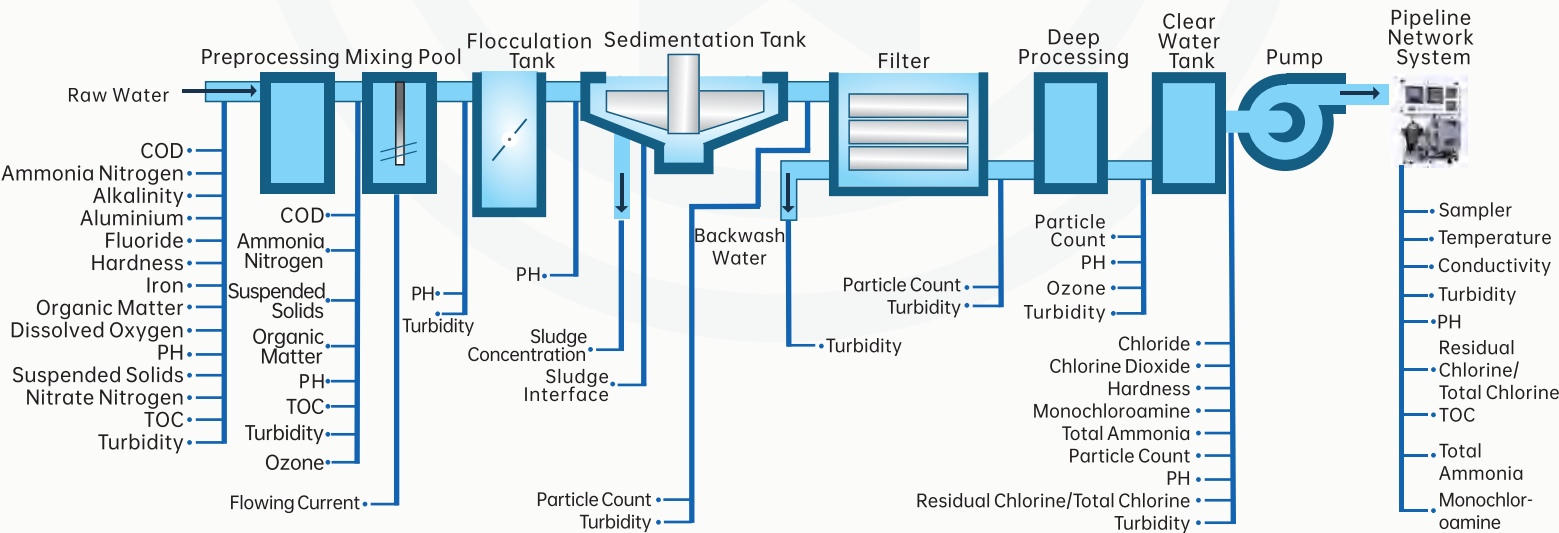
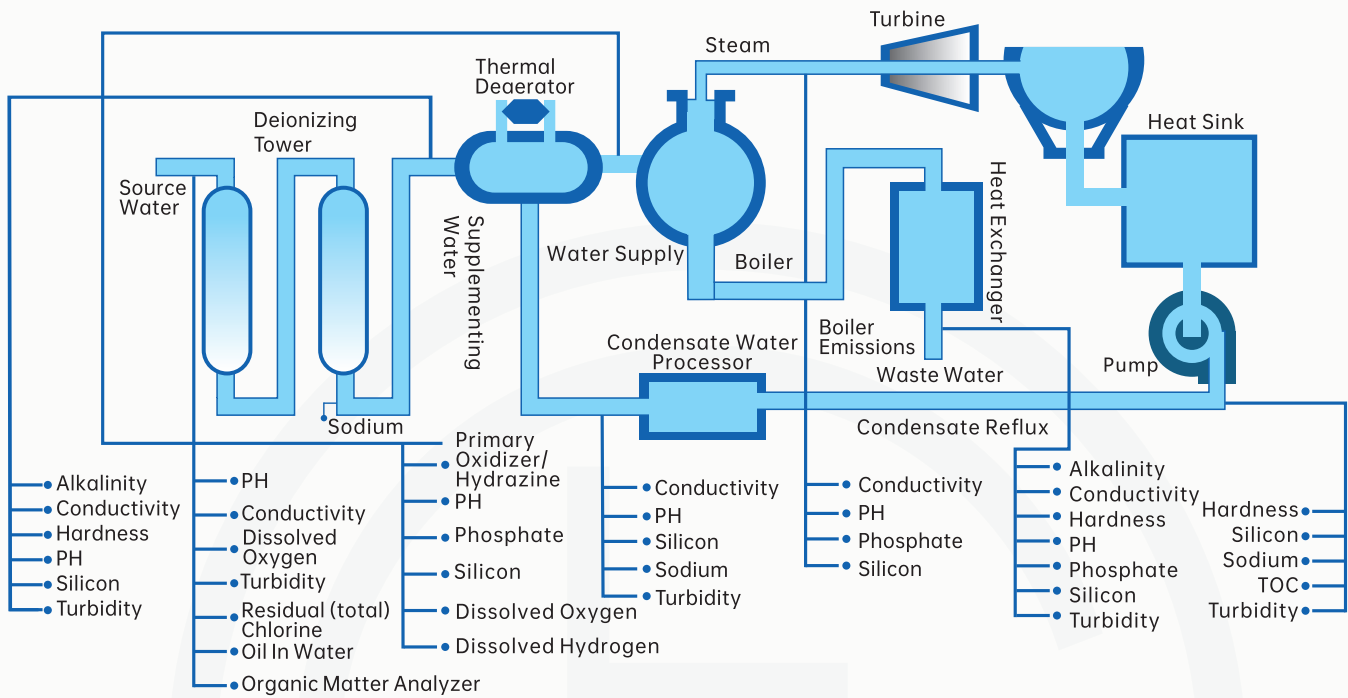
Mode	DO-C3
Product Diagram	
Measuring range	0-25mg/l
Temperature range	0-60°C
Power supply	12-24VDC
Output signal	RS485
Liquid receiving material	PPS, 304
Installation interface	Up and down NPT3/4
Electrode withstand voltage	0.3Mpa
Usage scenarios	Wastewater treatment, aquaculture, surface water, etc

# Sewage Treatment Process Diagram

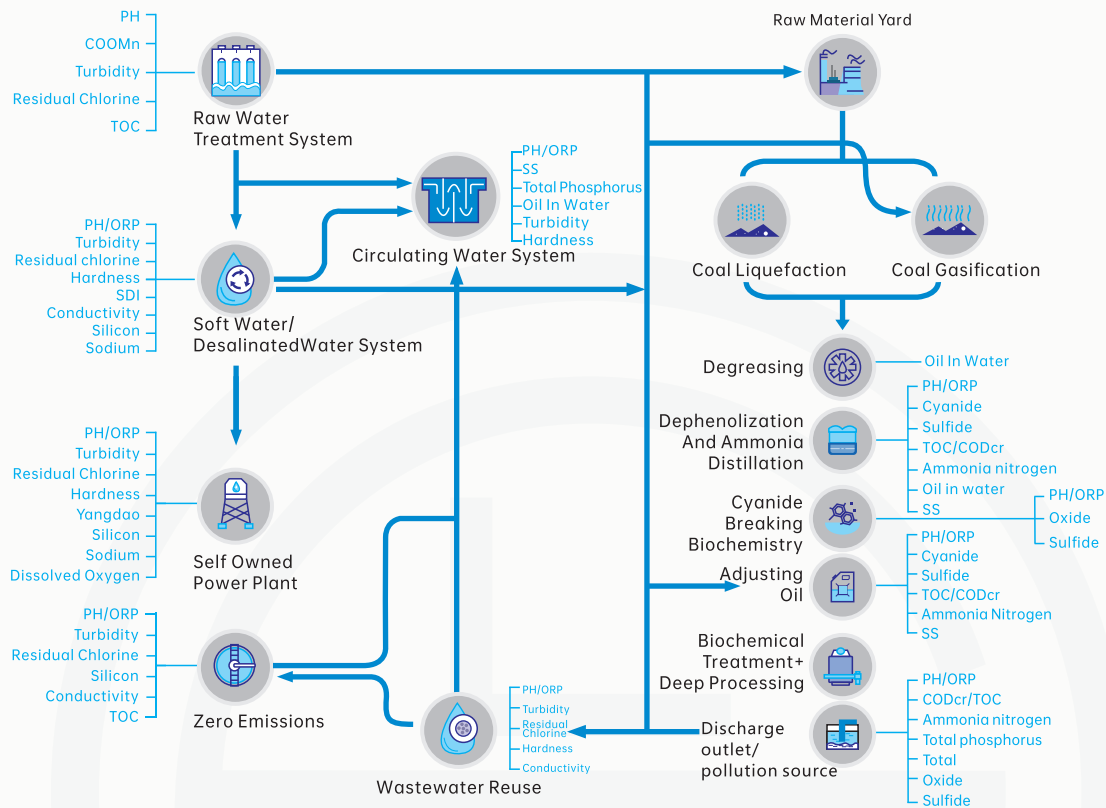


# Electronic Industry Water/Wastewater Reuse Process and Water Quality Monitoring Plan



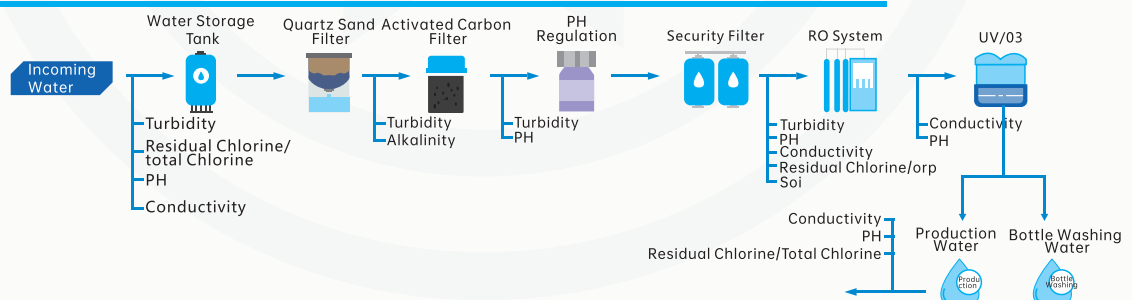


# Petrochemical Environmental Water Treatment Process Diagram

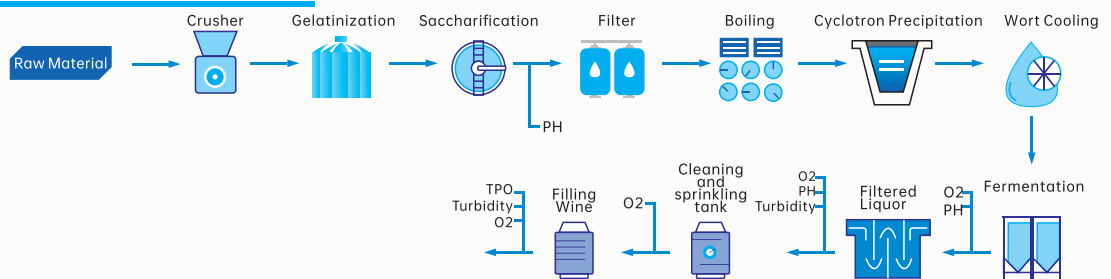


# Wastewater Treatment Process And Water Quality Monitoring Plan For The Beer And Beverage Industry

## Process Flow Of Beer Beverage Raw Water Pretreatment



## Beer Water Usage Process



## DO-C3 Selection Composition

Selection example **DO-C3**

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

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

## Explanation:

DO-C3 dissolved oxygen analyzer, electrode type is fluorescence method electrode, display screen is 4.3-inch LCD color screen, installation form is split type, measurement range of dissolved oxygen:  $\pm 0.2\text{mg/LF} \cdot \text{S}$ ; Temperature: 0-60 °C, precision dissolved oxygen  $\pm 0.2\text{mg/LF} \cdot \text{S}$ ; Temperature  $\pm 0.5$  °C, output signal 4-20mA, power supply 24VDC, electrode material 304, 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;