



Recorder



Flow



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Temp



Analyzer



Level

Datasheet

Dissolved Oxygen Sensor

SUP-DO7012 / 7010

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Datasheet

Dissolved Oxygen Sensor SUP-DO7012 / 7010

Dissolved Oxygen Sensor Measured by Fluorescence Method. The top of the sensor is covered with a layer of fluorescent material. When the blue light emitted by the sensor irradiates the fluorescent material, the fluorescent material is excited to emit red light. Since oxygen molecules can take away energy (quenching effect), the time and intensity of the excited red light are inversely proportional to the concentration of oxygen molecules, and the concentration of dissolved oxygen in water can be obtained by calculation.

Applications

- Sewage treatment plant conditioning tank
- Biochemical pool
- Water works
- Surface water
- Aquaculture

Features

- Optical type dissolved oxygen sensor, an intelligent online chemical analyzer.
- Various installation methods



Dissolved Oxygen Sensor

DO7012 Parameters	
Measuring range	Dissolved oxygen: (0~20)mg/L or 0~200% saturation Temperature: (0~45)°C with automatic temperature compensation
Measurement accuracy	Dissolved oxygen: $\pm 3\%$ of the measured value or ± 0.3 mg/L, choose the greater one. Temperature: ± 0.5 °C
Repeatability	± 0.3 mg/L
Resolution	0.01mg/L
Pressure range	≤ 0.3 Mpa
Sensor material	Body: Stainless Steel 316L (normal version), Titanium alloy (sea water version) Covers: PPS+glass fiber Cable: PUR
Power supply	(9~28)VDC
Communication protocol	MODBUS RS485
Storage temperature	(-15~60)°C
Operating temperature	(0~45)°C (No freezing)
Weight	1.4kg
Ingress protection	IP68/NEMA6P
Cable length	10m(Standard),extendable to 100m(Optional)

DO7010 Parameters	
Measuring range	Dissolved oxygen: (0~20)mg/L or 0~200% saturation (Range can be customized) Temperature: (0~45)°C
Display accuracy	Measured value $\pm 3\%$. Temperature: ± 0.5 °C
Dimension	Diameter 49.5mm*Length 251.3mm
Calibration	Air calibration
Pressure range	≤ 0.3 Mpa
Material	Body: Stainless Steel 316L (normal version), Titanium alloy (sea water version) Covers: PPS+glass fiber O-ring: Fluoroelastomer Cable:PVC
Power supply	12VDC
Output	MODBUS RS485
Storage temperature	(-15~60)°C
Operating temperature	(0~45)°C (No freezing)
Weight	1.4kg
Ingress protection	IP68
Cable length	10m(Standard),extendable to 100m

Installation

■ Quick release poolside fixed installation

CBZJ-02

The diagram illustrates the assembly of the CBZJ-02 quick release poolside fixed installation. It shows a side view of the assembly mounted on a wall and a vertical exploded view of the components. The side view labels parts 1 through 10. The exploded view labels parts 3, 4, 5, 6, 7, 8, 9, 10, and 11. The components include an M8 expansion bolt, an installed version of the bracket, a mounting is blocked indicator, an installation pipe (DN32), pipe clamps, flat pads, spring pads, large flat pads, M8 flange nuts, and a sensor adapter.

Serial number	Components
1	M8 Expansion bolt
2	Installed version
3	Mounting is blocked
4	Install pipe(DN32)
5	Pipe clamp
6	Pipe clamp
7	Flat pad M8
8	Spring pad M8
9	Large flat pad M8
10	M8 flange nuts
11	Sensor adapter (R1 to R5/4)

Note: No. 4 installation pipe DN32 in the picture means the inner diameter of the pipe is 32mm.

■ Railina fixed installation

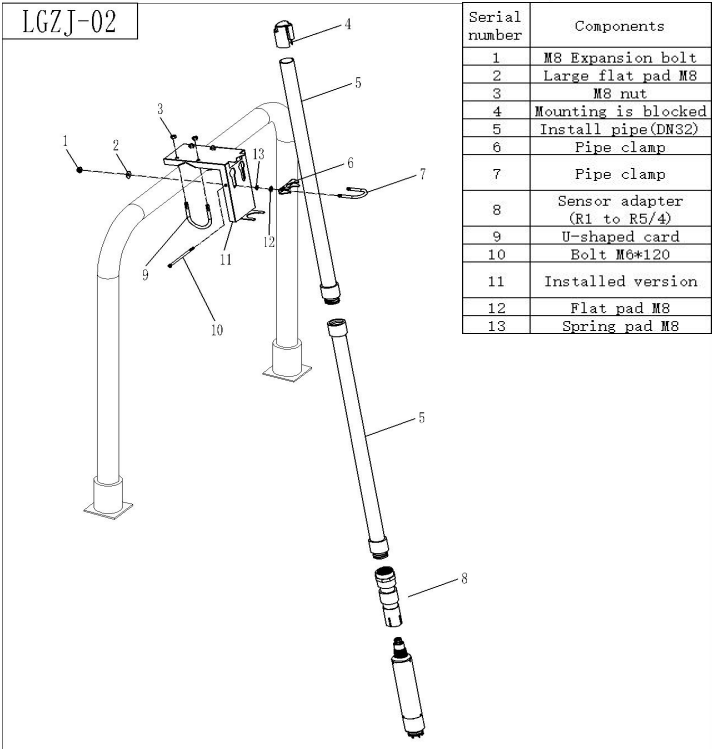
CBJD-02

The diagram illustrates the assembly of the CBJD-02 Railina fixed installation. It shows a side view of the assembly mounted on a wall and a vertical exploded view of the components. The side view labels parts 1 through 6. The exploded view labels parts 3, 4, 5, 6, and 7. The components include an expansion screw, an installation ferrule, a mounting is blocked indicator, an installation pipe (DN32), M8 socket head cap screws, M8 flange nuts, and a sensor adapter.

Serial number	Components
1	Expansion screw
2	Install the ferrule
3	Mounting is blocked
4	Install pipe(DN32)
5	M8 socket head cap screws
6	M8 flange nuts
7	Sensor adapter (R1 to R5/4)

Note: No. 4 installation pipe DN32 in the picture means the inner diameter of the pipe is 32mm.

■ Railing fixed installation



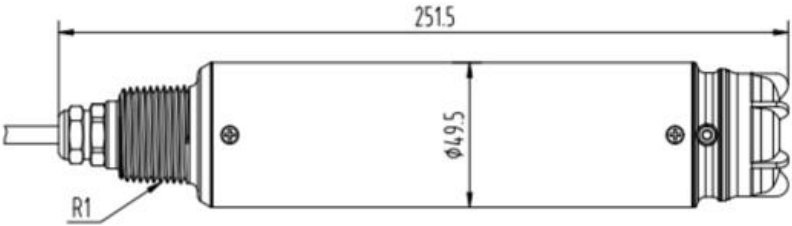
Note: No. 5 installation pipe DN32 in the picture means the inner diameter of the pipe is 32mm.

Wiring

The sensor is connected correctly according to the following wire core definitions:

Core number	1	2	3	4	5
Sensor wire	Brown	Black	Blue	White	Yellow+Green
Signal	+12VDC	AGND	RS485 A	RS485 B	Ground wire

Dimension



Ordering code

SUP-DO-7012-A-B-10-ZY-RA							Description
SUP-DO7012 / 7010	-	-	-				
DO sensor							Measuring range: (0-20) mg/L Temperature range: (0-45) °C Pressure resistance: 0.3MPa
Output	A						RS485
Power Supply		B					12VDC
Cable Length			10				10m
			20				20m
			30				30m
			XX				Other
Cable Connector				ZY			Cable Connector
				HK			M12 Connector
Housing Material and Thread Type					RA		SS316L, R1
					RB		Titanium, R1