



Recorder



Flow



Pressure



Temp



Analyzer



Level

Datasheet

Dissolved Oxygen Sensor

SUP-DO7012 / 7010

Supmea[®]

Committed to process automation solutions

Tel: 86-15158063876

E-mail: info@supmea.com

www.supmea.com

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: ±3% of the measured value or ±0.3 mg/L, choose the greater one. Temperature: ±0.5°C
Repeatability	±0.3mg/L
Resolution	0.01mg/L
Pressure range	≤0.3Mpa
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 ±3%. Temperature: ±0.5°C
Dimension	Diameter 49.5mm*Length 251.3mm
Calibration	Air calibration
Pressure range	≤0.3Mpa
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

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.

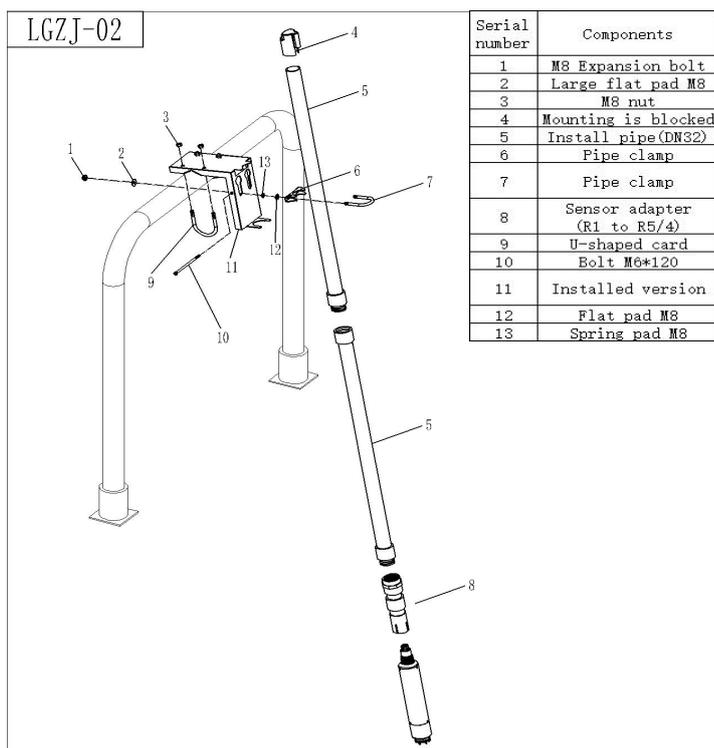
■ Railina fixed installation

CBJD-02

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



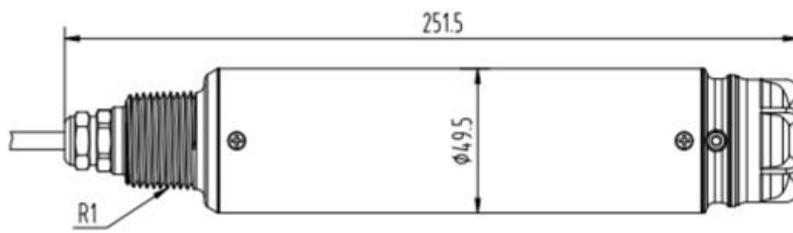
Note: No. 5 installation pipe DN32 in the picture means the inner diameter of the pipe is 32mm.

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