

SUP-DO7010-IS

Optical dissolved oxygen sensor



Measurement Principle:

Dissolved Oxygen analyzer adopts fluorescence method to measure dissolved oxygen. The cap of the sensor is coated with a luminescent material. Blue light from an LED illuminates the luminescent chemical. The luminescent chemical instantly becomes excited and releases red light. The time and intensity of red light are inversely proportional to the concentration of oxygen molecules, So the concentration of oxygen molecules is calculated.

Features:

- The sensor adopts new type of oxygen sensitive membrane, with NTC temperature compensated function, whose measurement result has good repeatability and stability.
- Won't produce oxygen consumption when measuring and no requirement of flow rate and stirring.
- Breakthrough fluorescence technology, without membrane and the electrolyte and almost not need maintenance.
- Built-in self-diagnosis function to ensure the accuracy of data.
- Factory calibration, not need calibration for a year and can carry out field

calibration.

- Digital sensor, high anti-jamming capacity and far transmission distance.
- Standard digital signal output, can achieve integration and networking with other equipment without controller.
- Plug-and-play sensor, quick and easy installation.

Applications:

- DO online monitoring of different technological processes such as regulating reservoir, biochemical pool and effluent of sewage treatment plant.
- DO online monitoring of water plant, surface water, industrial process water and aquaculture and etc.

Technical Specifications:

Measurement range	DO: 0-20 mg/L、0-20 ppm; Temperature: 0-45°C
Measurement Accuracy	DO: ±3% of the measured value ; Temperature : ±0.5°C
Pressure range	≤0.3Mpa
Calibration	Air automated calibration, sample calibration
Main material	Body: SUS316L + PVC (fresh water), Titanium alloy (marine); O-ring: fluorine rubber; Cable: PVC
Power supply	AC: 100-240VAC (50/60HZ) DC: 9~36VDC
Output	2-way 4-20mA
Relay	Setting three-way relays, programmed response parameter and response value.
Communication protocol	MODBUS RS485
Storage temperature	-15-65°C
Measuring temperature	0-45°C
Dimensions	Sensor: Dia55mm*L 342mm Transmitter: 145*125*162mm(L*W*H)
Weight	Sensor: 1.85KG; Transmitter: 1.35KG
Protective rate	Sensor: IP68/NEMA6P; Transmitter: IP65/ NEMA4X
Cable length	Standard: 10m, the maximum may be extended to 100m