

PFDO-700 Dissolved Oxygen Online Analyzer

Measurement Principle

PFDO-700 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 no maintenance.
- ❖ Built-in self-diagnosis function to ensure the accuracy of data. Plug-and-play sensor, quick and easy installation.
- ❖ Factory calibration, not need calibration for a year and can carry out field calibration.
- ❖ Digital sensor, high anti-jamming capacity and far distance transmission .
- ❖ Standard digital signal output can achieve integration and networking with other equipment without controller.

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 or 0-200% saturation;Temperature:0-45℃
Measurement Accuracy	DO:±3% or ±0.3 mg/L, the bigger one ;Temperature:±0.5℃
Resolution	0.01mg/L
Repeatability	±0.3mg/L
Pressure range	≤0.3Mpa
Calibration	Air automated calibration, sample calibration
Main material	Body:SUS316L(fresh water),Titanium alloy(Ocean marine); Cover:PPS+ glass fiber;Cable:PUR
Power supply	AC:85-500VAC; DC:9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed parameter & value response.
Communication protocol	MODBUS RS485
Storage & Measuring temp	-15-60℃,0-45℃(Non-freezing)
Dimensions	Sensor:Dia49.5mm*L 251.3mm,Transmitter:145*125*162mm(L*W*H)
Weight	Sensor:1.4KG;Transmitter:1.35KG
Protective rate	Sensor:IP68/NEMA6P;Transmitter:IP66/ NEMA4X
Cable length	Standard:10m, the maximum may be extended to 100m

PFDO-800 Dissolved Oxygen Online Analyzer

Measurement Principle

PFDO-800 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 no 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 distance transmission .
- ❖ Standard digital signal output can achieve integration and networking with other equipment without controller.
- ❖ Plug-and-play sensor, quick and easy installation.

Technical Specifications

Measurement range	DO:0-20 mg/L or 0-200% saturation;Temperature:0-45°C
Measurement Accuracy	DO:±3% or ±0.3 mg/L, the bigger one;Temperature:±0.5°C
Resolution	0.01mg/L
Repeatability	±0.3mg/L
Pressure range	≤0.3Mpa
Calibration	Air automated calibration, sample calibration
Main material	Body:SUS316L(fresh water),Titanium alloy(Ocean marine); Cover:PPS+ glass fiber;Cable:PUR
Power supply	AC:85-500VAC;DC:9-36VDC
Output	3-way 4-20mA
Relay	Three-way relays, programmed parameter & value response.
Communication protocol	MODBUS RS485
Storage temperature	-15-60°C
Measuring temperature	0-45°C(Non-freezing)
Dimensions	Sensor:Dia49.5mm*L 251.5mm,Transmitter:145*125*162mm(L*W*H)
Weight	Sensor:1.4KG;Transmitter:1.35KG
Protective rate	Sensor:IP68/NEMA6P;Transmitter:IP66/ NEMA4X
Cable length	Standard:10m, the maximum may be extended to 100m