

# Smart Dissolved Oxygen Sensor

Product model: FST100-DO202A

Firstrate

FST100-DO202A smart dissolved oxygen sensor is an integrated online fluorescence dissolved oxygen sensor designed based on the quenching principle of excited fluorescence by specific substances in physics. When the excitation light shines on the fluorescent substance on the surface of the fluorescent membrane head, the fluorescent substance is excited and emits fluorescence. The extinguishing time of the fluorescence is affected by the concentration of oxygen molecules on the surface of the fluorescent membrane head. The concentration of oxygen molecules can be calculated by detecting the phase difference between fluorescence and excitation light and comparing it with the internal calibration curve, and outputs the final value after temperature and salinity compensation.

## ◆ Features

- ✓ No need for electrolyte, no polarization, no need to consume oxygen, and not affected by flow rate
- ✓ The fluorescent film head is easy to replace and simple to maintain.
- ✓ Universal RS485 interface, Modbus/RTU protocol
- ✓ Conveniently connected to third-party equipment such as industrial control computers, general controllers, recording instruments, PLC, DCS, etc.
- ✓ Dual high-impedance differential amplifiers, strong anti-interference and fast response speed
- ✓ 3/4" NPT pipe thread is easy to install, convenient for submersible installation or installation in pipes and tanks
- ✓ Protection grade IP68



## ◆ Technical parameter

model	FST100-DO202A
Measuring range	0-20mg/L (0~200% saturation, 25℃)
resolution	0.01mg/L
Accuracy	±2%FS,±0.3℃
Operating temperature	0~45℃
work pressure	< 0.2MPa
Temperature compensation	Automatic temperature compensation (Pt1000)
powered by	12~24VDC
Signal output	RS-485(Modbus/RTU)
shell material	POM
Installation method	Submersible installation, 3/4" NPT pipe thread
Cable length	5 meters, other lengths can be customized
Calibration method	Two point calibration
Power consumption	0.2W@12V
Protection level	IP68

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## ◆ Product dimensions and installation electrical interface

