

WATER QUALITY MONITORING / DATA SHEET

SS305-02

Fluorescence-based Dissolved Oxygen Transmitter

A fluorescence-based transmitter for continuous dissolved-oxygen measurement in water. The optical method does not consume oxygen and requires no electrolyte, while automatic temperature compensation and an imported-quality fluorescent membrane support stable long-term monitoring.

Overview

- Dissolved oxygen range of 0-20 mg/L or 0-200% saturation.
- 0.01 mg/L resolution and response time of 60 seconds or less.
- Fluorescence measurement with no oxygen consumption and no electrolyte replacement.
- RS485, analog, Wi-Fi, 4G and Ethernet options with wide DC 10-30 V supply.



Measured Dissolved Oxygen	Range 0-20 mg/L	Resolution 0.01 mg/L	Supply DC 10-30 V
Key Functions • Imported-quality fluorescent membrane with no electrolyte and no oxygen consumption. • Automatic temperature compensation and a simple calibration function. • NPT 3/4 threaded probe for submerged, waterproof-tube or flow-through installation. • Probe IP68 protection and 0.6 MPa pressure resistance.		Applications • Water treatment and disinfection-process monitoring. • Aquaculture and recirculating-water management. • Environmental water-quality monitoring. • Process-water and wastewater applications.	

SYSTEM DATA

Technical Specifications

Item	Specification
Supply Voltage	DC 10-30 V; 0-10 V output requires DC 24 V
Dissolved Oxygen Range	0-20 mg/L or 0-200% saturation
Measurement Principle	Fluorescence method; no oxygen consumption and no electrolyte
Measurement Error	±0.3 mg/L; temperature error ±0.5 °C at 25 °C
Resolution	0.01 mg/L; 0.1% saturation; temperature 0.1 °C
Response Time	≤60 s
Operating Conditions	Probe: 0-40 °C; enclosure: -40 to 60 °C, 0-95% RH non-condensing
Power Consumption	0.2 W for RS485; ≤0.8 W for analog; 0.4 W for network versions
Fluorescent Membrane Life	Approximately 1 year in normal use
Protection / Pressure	Probe IP68; enclosure IP65; 0.6 MPa
Cable Length	5 m standard
Housing Material	Standard: corrosion-resistant plastic or stainless steel; economy: corrosion-resistant plastic

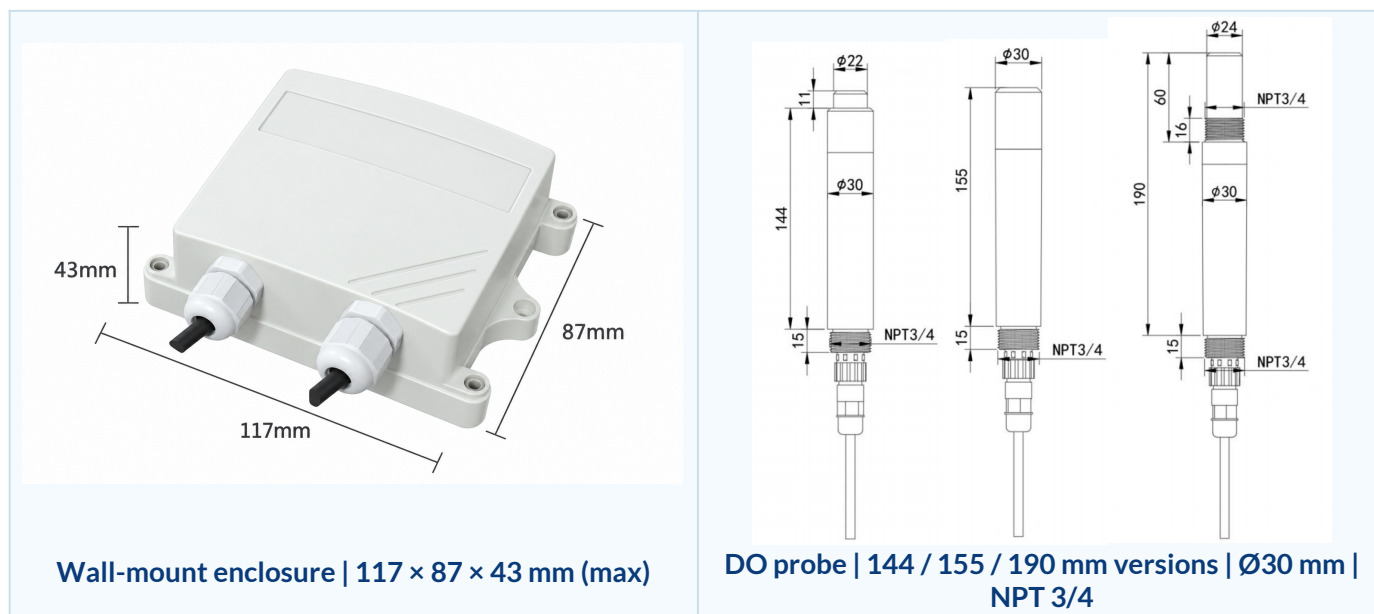
INTERFACES

Output and Communication Options

Option	Power	Description
RS485	0.2 W	Modbus-RTU; 4800 bit/s default; 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 configurable
Analog	≤0.8 W	4-20 mA, 0-5 V or 0-10 V selectable; 0-10 V requires DC 24 V
4G	0.4 W	2 s acquisition; 1-65535 s upload interval; 60 s default; monthly traffic below 25 MB at default interval
Wi-Fi	0.4 W	2 s acquisition; 1-65535 s upload interval; LAN / WAN communication and DNS support
Ethernet	0.4 W	2 s acquisition; 1-65535 s upload interval; wired network communication

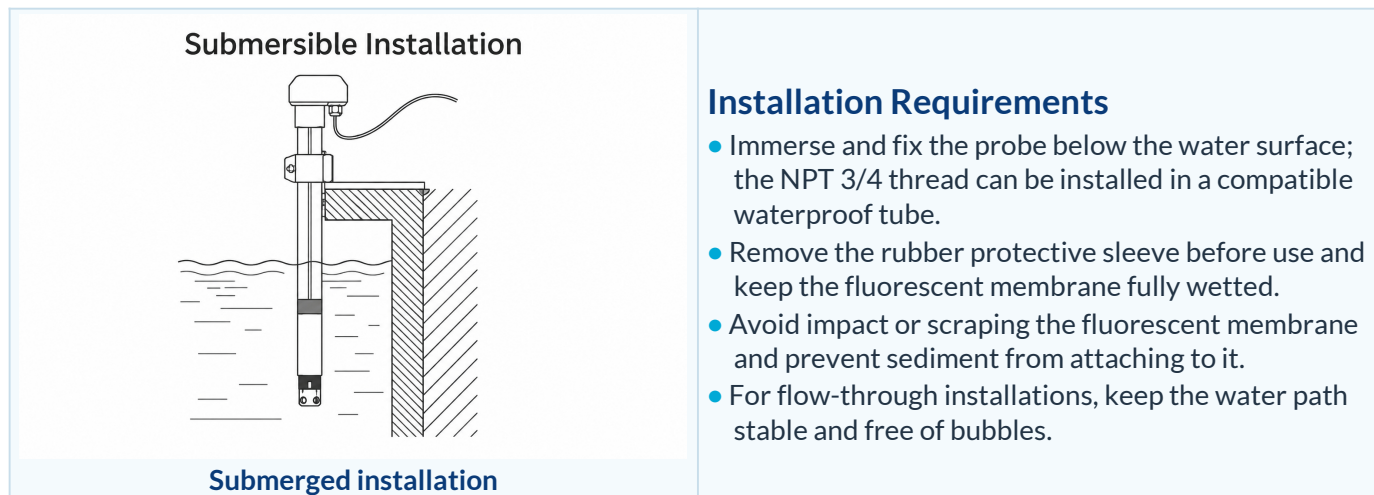
HARDWARE

Transmitter and Electrode Dimensions



INSTALLATION

Submerged Probe Installation



CONTACT / SUPPORT

SpeSense Technologies Inc.

Add: No. 9 Yuhe Road, Guitang Subdistrict, Yuhua District, Changsha City

Tel: +86-15386478166

Email: info@spesense.com

Web: www.spesense.com



WhatsApp / WeChat