

SensorsX SX-CDRQA Series

Dissolved Oxygen Sensor for Aquaculture
Industrial Dissolved Oxygen Sensor



0-20 mg/L Measurement Range	±3% Accuracy	RS-485 / Modbus Digital Output
IP68 Ingress Protection	30 m Maximum Water Depth	0.1 W Power Consumption

Industrial Water Quality Measurement | Dissolved Oxygen

■ PRODUCT OVERVIEW

The SX-CDRQA Series dissolved oxygen sensor is designed for aquaculture water-quality monitoring. It uses fluorescence-method measurement technology with high-performance fluorescent material. The sensor does not consume oxygen, has no flow-rate limitation, and requires no electrolyte solution. It requires minimal maintenance and calibration, offers high resistance to interference, and provides stable measurement performance. A built-in temperature sensor provides automatic temperature compensation, and the digital RS-485 output supports convenient system integration.



■ KEY FEATURES

◆ Digital sensor with RS-485 output, Modbus protocol	◆ No electrolyte required; high resistance to interference; reduced recalibration requirements
◆ Purpose-built for the aquaculture market, optimized for cost-effective aquaculture water-quality monitoring	◆ Built-in temperature sensor with automatic temperature compensation
◆ Built-in calibration parameters, factory-calibrated for quick installation and commissioning	

■ TYPICAL APPLICATIONS

- Aquaculture / fish-farming water quality monitoring

■ PERFORMANCE SPECIFICATIONS

Measurement	
Product Type	Dissolved Oxygen Sensor
Measurement Principle	Fluorescence method
Measurement Range	0-20 mg/L or 0-200% saturation
Accuracy	
Accuracy	±3%
Calibration	
Calibration	1-point or 2-point calibration

※ The technical specifications above are based on laboratory standard-solution conditions.

■ ELECTRICAL SPECIFICATIONS

Digital Communication	
Digital Interface	RS-485
Communication Protocol	Modbus
Power	
Power Consumption	0.1 W
Power Supply	DC 9-24 V, current > 50 mA

■ ENVIRONMENTAL SPECIFICATIONS

Temperature	
Operating Temperature Range	0-50 °C (32-122 °F)
Mechanical & Environmental	
Maximum Water Depth	30 m (98.4 ft)
Ingress Protection	IP68
Mounting	M22×1.5 (optional adapter to NPT 3/4 thread), immersion mounting
Dimensions	Φ22 mm × 152.7 mm (Φ0.87 in × 6.01 in)
Cable Length	10 m (32.8 ft) default, customizable
Housing Material	316L Stainless Steel or Titanium Alloy

■ COMMUNICATION PROTOCOLS

Digital Interface	RS-485
Communication Protocol	Modbus

■ ORDERING INFORMATION

Complete model number reference: **SX-CDRQA-111**

Measurement Range

1	0-20 mg/L or 0-200% saturation
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Accuracy

1	±3%
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Housing Material

1	316L Stainless Steel
2	Titanium Alloy

Customized

D	Customized — specify requirements when ordering
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