

Reagent-Free Multi-Parameter Sensor

ATE1200

Features

- 7 Parameter Measurement;
- COD Measurement;
- Turbidity Measurement;
- Based on fluorescence measurement for rapid detection;
 - UVLED cold light source for long lifespan;
 - Multi-parameter measurement;
 - Real-time monitoring with quick response (minutes);
 - No sampling or pre-treatment required;
 - Chemical-free;
 - RS485 signal output;
 - Low maintenance and operational costs;

Application

- Wastewater Treatment Plants
- Environmental Monitoring
- Water Quality Monitoring in Rivers, Lakes, Reservoirs, and Other Natural Water Bodies
- Aquaculture Water Quality Monitoring
- Industrial Production Process Control of Surface Water
- Trend Analysis

Description

The Optosky ATE1200 Reagent-Free Multi-Parameter Sensor represents a breakthrough in eco-friendly water quality monitoring technology. This advanced multi-parameter sensor enables simultaneous measurement of up to seven parameters with high precision. The sensor is designed for real-time, automated, and portable water quality testing, using an open flow cell for in-situ online testing. With its chemical-free technology, the ATE1200 eliminates the need for traditional reagents, reducing maintenance and extending instrument lifespan.

Ideal for various applications in industrial water analysis, environmental monitoring, and wastewater treatment, ATE1200 integrates smart water sensing with RS485 and Modbus RTU communication protocols for reliable data transmission. The ATE1200's innovative design overcomes the limitations of traditional reagent-based photometric colorimeters, offering a data-driven water analysis solution that's both efficient and reliable. By setting a new standard in chemical-free water quality monitoring, the ATE1200 provides a robust and eco-friendly technology for modern water management needs.



1. Select Guide

Model	Description
ATE1200-Oil	Portable Oil in Water Sensor
ATE1200-YLS	Portable Algae Sensor
ATE1200-COD	Portable COD and Nitrate Sensor
ATE1200-ZD	Portable Turbidity Sensor
ATE1200-7	Portable Seven-Parameter Water Quality Sensor

2. Parameter

Parameter	Specification
Measurement Principle	Integrated multiple spectral fusion technologies (absorption, fluorescence, scattering, etc.)
Measurement Cycle	1-600 minutes (configurable)
Measurement Parameters	COD, Turbidity, Oil in Water, Chlorophyll, Temperature, Conductivity
Measurement Range (custom ranges available)	0-450 mg/L (10mm path length), 0-100 NTU, 0-500 µg/L (PAH), 0-200 µg/L, 0-50° C, 0-200 µs/cm
Accuracy	±5%, ±5%, ±5%, ±5%, ±1° C, ±5%
Housing Material	POM
Dimensions	195 mm × 94 mm
Weight	1.5 kg
Power Supply	5-24 VDC
Communication Method	RS485
Power Consumption	1.5 W
Calibration	Factory calibration / Field calibration (based on accuracy and customer requirements)
Installation Method	Immersion, bypass extraction, various installation methods (according to customer needs)
Storage Temperature Range	-10 to 50° C
Warranty Period	1 year
Maintenance and Calibration Frequency	Every 3 months
Operational Water Depth	IP68, <10 meters
Cable Length	Standard 3 meters

3. Installation Conditions

Condition	Specification
Ambient Temperature	0-40°C
Air Relative Humidity	0-95% RH (non-condensing)
Testing Liquid Temperature	0-40°C
Flow Rate Requirement	< 3 m/s
pH Range	6-9

4. Industry Applications

Wastewater Treatment Plants



Figure 1: ATE1200 Application in Wastewater Treatment Plants

Environmental Monitoring



Figure 2: ATE1200 Application in Environmental Monitoring

Aquaculture



Figure 3: ATE1200 Application in Aquaculture