



REAL UV BOD/COD SENSOR

PL series



Specification Sheet

REAL UV BOD/COD SENSOR

Real Tech's UV BOD/COD sensors offer the most practical and accurate method for monitoring BOD and COD in real-time. The results are instant, meaning data can be used to make immediate adjustments and improve upstream or downstream processes. Real-time data can also be used for assurance of effluent water quality prior to discharging to the environment or municipal sewer system. The robust sensor design and complementary optional automatic chemical cleaning system keep maintenance to a minimum while improving performance.



APPLICATIONS

- Influent/Effluent monitoring for treatment process optimization
- Effluent monitoring for regulatory compliance
- Industrial effluent pollution management
- Municipal sewer control
- Water reuse quality control
- and more.....

“WE APPRECIATE THE EXCELLENT SERVICE RECEIVED BY THE REAL TECH TEAM. THE TECHNOLOGY OFFERED OFFERS RELIABLE OPERATION AS WELL AS MINIMAL MAINTENANCE. OVERALL, EXCELLENT TECHNOLOGY, EXCELLENT PRICE AND EXCELLENT SERVICE.”

Jean-Luc Paradis - Municipal Director, Polychem

Features and Benefits

- Real-time BOD/COD measurement
- No waiting for the laboratory
- Low maintenance
- No complexity, simple to operate
- Easy to install
- Practical and affordable monitoring system
- Reagentless operation
- Various measurement ranges (mg/L)

Simple. Accurate. Affordable.

Real Tech's UV BOD/COD sensor uses ultraviolet (UV) and visible (VIS) absorbance technology to simply and accurately measure BOD and/or COD in real-time.

UV Absorbance Measurement Principle

Organic matter naturally absorbs UV radiation between 200-400 nm. As the BOD or COD increases, the absorbance of light in this distinct wavelength range will also increase. Common interferences with BOD and COD measurements, such as total suspended solids, are compensated for by measuring absorbance at additional reference wavelengths in the visible (VIS) spectrum.

Using UV-VIS absorbance data in combination with laboratory BOD and COD data, a relationship or 'calibration' can be established. This calibration is then used by the sensor to report accurate and precise real-time measurements.

Low maintenance. Stable output.

Real Tech's innovative Split-Sense Pro technology uses a method of moving the sample from a test position to a reference position, allowing for continuous compensation of lamp and sensor drift. This practical method allows for long term stability in measurements, avoiding the need for frequent calibration.

Full Control

Operation and control of the Real UV BOD/COD sensor is simple with Real Tech's "plug and play" controllers. A single sensor or multiple sensors can be connected to one controller, bringing all data to one central location for quick and simple analysis.

Access and Support

With Real Tech's optional remote monitoring capabilities, real-time data can be accessed anywhere, anytime allowing our clients to take control immediately. Additionally, this feature allows Real Tech to provide remote support, giving our clients peace of mind and confidence in their data.

Optional Automatic Pump and Clean System

The optional Pump Clean systems are the ideal choice to keep maintenance to a minimum and performance at its best. The system provides flow to the sensor for open channel applications and can be programmed to meet the cleaning demands of each site - further reducing maintenance.



TAKE CONTROL, KNOW WHAT'S IN YOUR WATER

Table 1: Models and Measurement Range

Model	Path Length	BOD (mg/L)	COD (mg/L)
PL2010.BOD/COD	1 mm	0-1275	0-2400
PL2020.BOD/COD	2 mm	0-640	0-1200
PL2040.BOD/COD	4 mm	0-320	0-600
PL2080.BOD/COD	8 mm	0-160	0-300
PL3500.BOD/COD	50 mm	0-25	0-50

* Range can be extended up to 127,500 mg/L BOD and 240,000 mg/L with Dilution System.

Table 2: Technical Specifications

Characteristic	Technical Data
Units	mg/L
Sampling Time	1 minute
Calibration	In-situ zeroing to DI water
Cleaning	In-situ chemical cleaning or optional automatic chemical cleaning
Self-Diagnostics	Detection and diagnosis of internal system fault
Alarms	Dry contact terminals allow for operator configurable alarms for: high and low set points, low lamp output, leak detected, system fault, etc.
Humidity Control	Humidity sensor with large plug-in regenerating desiccant system
Wavelengths	Full scanning between 190-750 nm
Light Source	Deuterium and Tungsten Lamp
Lamp Life	4000 hrs. each
Dimensions	16"H x 20"W x 8"D
Enclosure	1P66, NEMA 4, wall mountable
Flow Rate	300-1000 mL/min
Pressure Rating	20 PSI
Fluid Connections	1/4" OD tube push-in fittings
Storage Temp.	-20 to 60°C (-4 to 140°F)
Operating Temp.	0 to 45°C (32 to 113°F)
Weight	44 lbs
Warranty	2-year limited warranty (Extended care packages available)
Technology	Split-Sense Pro
Options	Dilution System, Dual Feed, Real Clean, Pump Clean, High Temperature Upgrade, etc.

*Additional models and spec options available, contact Real Tech for more information.