

WATER QUALITY
MONITORING
SOLUTIONS

TOC MONITORING SYSTEM



SOURCE WATER MONITORING
DRINKING WATER

REALTECH
INC.

MONITOR YOUR SOURCE, PROTECT YOUR TREATMENT

Seasonality, weather events, agricultural practices or upstream discharges can influence the quality of surface water organics. Monitoring incoming organics with TOC or UV254 in real time provides an early warning of change or uncharacteristic events so you can take immediate corrective action to adjust treatment processes, limit operational problems, and improve treated water quality.

TOC Monitoring System



MONITORING SYSTEM FEATURES

- Low cost, reagent free organics monitoring
- Outputs as TOC, DOC, UV254 or colour
- Automatic chemical cleaning lowers maintenance
- Simple integration with 4-20 mA output
- Available as a panel providing easy installation and operation
- Connects with Real Tech's Liquid Ai data services platform

MEASUREMENT PRINCIPLE

Real Tech's multi-wave sensor uses absorbance of light to measure organic compounds that have a natural peak absorbance in the UV light spectrum. The sensor provides a multi-dimensional measurement of organics that enables improved correlations to standard organics water quality parameters, such as TOC, over a single dimensional UV254 sensor and the ability to detect changes in the composition of organic load independent of the level of organics. The patent pending LED technology keeps maintenance and costs at a minimum, making the multi-wave sensor an ideal choice for source water organics monitoring.

TOC

MONITORING SYSTEM SPECIFICATIONS

CHARACTERISTIC	TECHNICAL DATA
SENSOR	
Parameters	TOC, DOC, UV254, colour
Units	Parameter specific (mg/L, cm ⁻¹ or PCU)
Range	Depends on model selected. Refer to range chart on page 4
Sampling Time	30 seconds
Calibration	Zero to DI water. Factory TOC or DOC calibration allows field adjustment as required
Cleaning	Automatic chemical cleaning
Self-Diagnostics	Continuous detection of leaks, lamp output, humidity, temperature and electrical fault
Humidity Control	Humidity sensor with large plug-in regeneratable desiccant pack
Wavelengths	Multiple UV and visible wavelengths
Light Source	LED
Pressure Rating	20 PSI
Flow Rate	300-1000 mL/min
CONTROLLER	
Display	4-line x 20-character backlit LCD with LED indicator
Operator Interface	Five push buttons to control a comprehensive hierarchical menu system
Alarms	Display of sensor specific alarms
Communication	Modbus (RS485), 4-20mA output standard. Optional Wi-Fi, additional 4-20mA, cellular modem
Data Logging	Onboard (6-month nominal configuration dependent). Optional remote data logging. Export data via USB
CLEANING	
Clean Frequency	User configurable
Cleaning Capacity	1L storage container, cleaning fluid recapture feature reduces fluid replenishment frequency
FULL MONITORING SYSTEM	
Electrical	24VDC 13.4A power adapter (accepts 90-250VAC 50/60Hz)
Fluid Connections	1/4" tube push in fittings
Enclosure	NEMA 4, wall mountable cabinets
Storage Temp.	-20 to 60°C (-4 to 140°F)
Operating Temp.	0 to 45°C (32 to 113°F)
Warranty	2-year limited warranty (Extended care packages available)

* Technical Specifications are subject to change without notice.

Build your TOC Monitoring System



SELECT A TOC SENSOR

PRODUCT#	TOC (mg/L)	DOC (mg/L)	UV254 (cm ⁻¹)	COLOUR (PCU)
SL2010	0 - 1200	0 - 800	0 - 20	0 - 6000
SL2020	0 - 600	0 - 400	0 - 10	0 - 3000
SL2040	0 - 300	0 - 200	0 - 5	0 - 1500
SL2100	0 - 120	0 - 80	0 - 2	0 - 600

* Stated ranges are approximate, dependent on industry, site and application.
Contact Real Tech to confirm model selection.



REAL CONTROLLER

PRODUCT #	DESCRIPTION
S-169000	Wall mounted controller with 4-line x 20-character back lit LCD display for sensors



REAL CLEAN SYSTEM I

PRODUCT #	DESCRIPTION
UVT-078130	Automatic chemical cleaning system for use with 2000 series sensor models

Additional Selections

BACKBOARD MOUNTING

PRODUCT #	DESCRIPTION
S-179034	Sensor, controller and cleaning system pre-mounted, plumbed and wired to backboard (with stand S-179035)

DATA SERVICE

PRODUCT #	DESCRIPTION
Liquid Ai Calibration Health Monitoring	On-going calibration monitoring service to ensure a high level of accuracy and reliability in parameter and compound data over time
Liquid Ai Remote Monitoring	User friendly, secure web-based platform for remote access to sensor system information anywhere, anytime

Additional water quality parameters can be added to any monitoring system configuration.

Real Tech Inc.

1150 Champlain Court,
Whitby, Ontario L1N 6K9 Canada
TF: 1.877.779.2888 T: 1.905.665.6888
info@realtechwater.com

