

WATER QUALITY
MONITORING
SOLUTIONS

UV254 MONITORING SYSTEM



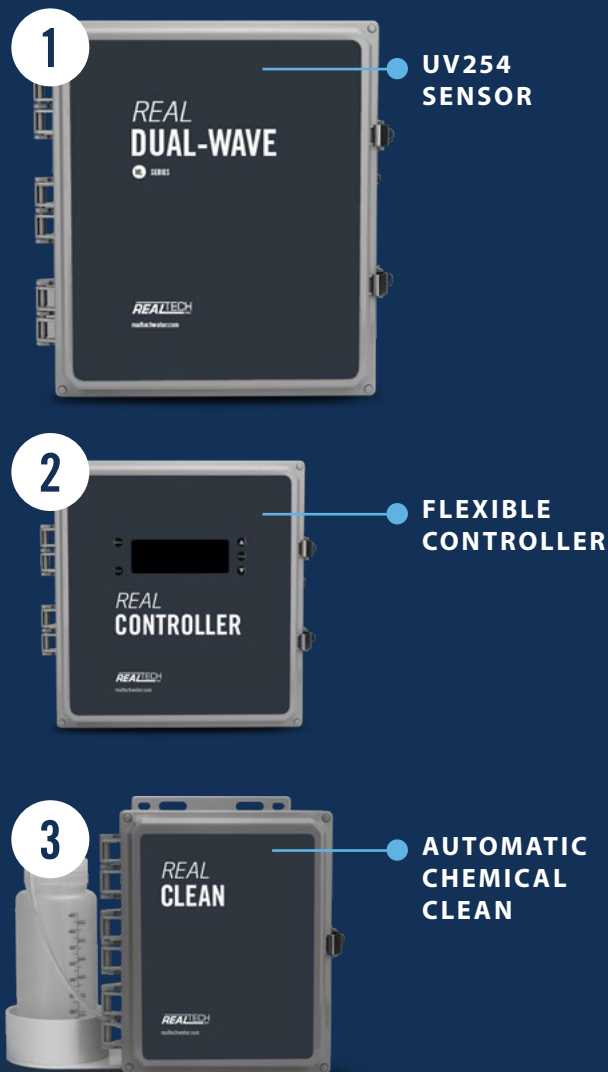
SOURCE WATER MONITORING
DRINKING WATER

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 in real time with an affordable and simple UV254 system 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.

UV254 Monitoring System



MONITORING SYSTEM FEATURES

- Low cost, reagent free organics monitoring
- Outputs as UV254, TOC, DOC or colour
- Automatic chemical cleaning lowers maintenance
- Simple integration with 4-20 mA output
- Available as a panel providing easy installation and operation
- Additional sensor integration available for complete source water monitoring package

MEASUREMENT PRINCIPLE

Real Tech's dual-wave sensor utilizes light at 254 and 550 nm wavelengths. Many organic compounds, specifically aromatic organics, absorb light at 254 nm while interfering compounds, such as suspended solids, are compensated for at 550 nm. Ideal for source water monitoring and process control, UV254 absorbing organics are preferentially removed in the coagulation and activated carbon absorption process. Additionally, the fraction of natural organic matter (NOM) that is likely to form DBPs is best measured with UV254. The dual-wave sensor benefits from Real Tech's innovative Ortho-Beam and Split-Sense Pro technologies, compensating for lamp drift and fluctuations to provide an accurate and stable output overtime with minimal maintenance.

UV254

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	10 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	253.7 nm and 550 nm
Light Source	Low-pressure mercury UV lamp and 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 UV254 Monitoring System



SELECT A UV254 SENSOR

PRODUCT#	UV254 (cm ⁻¹)	TOC (mg/L)	DOC (mg/L)	COLOUR (PCU)
ML2010	0 - 20	0 - 1200	0 - 800	0 - 6000
ML2020	0 - 10	0 - 600	0 - 400	0 - 3000
ML2040	0 - 5	0 - 300	0 - 200	0 - 1500
ML2100	0 - 2	0 - 120	0 - 80	0 - 600
ML3000	0 - 1	0 - 60	0 - 40	0 - 300

* 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 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.