

WATER QUALITY
MONITORING
SOLUTIONS

TSS

MONITORING SYSTEM



WASTEWATER

REALTECH
INC.

IMPORTANCE OF TSS MONITORING

Total suspended solids (TSS) is an important water quality parameter for wastewater treatment operations and environmental health. Wastewater contains large quantities of suspended organic and inorganic material that must be removed through screening, filtration or settling/flotation methods prior to environmental discharge. If TSS is not removed properly through treatment, high concentrations can lower the water quality in the receiving environment. Real-time TSS monitoring can aid with process control to enhance removal and ensure effluent quality meets expectations.

TSS Monitoring System



MONITORING SYSTEM FEATURES

- Affordable real-time TSS monitoring in a wastewater process
- Long life LED light source
- Automatic compressed air cleaning
- Simple integration with 4-20mA output
- Easy to install and operate
- Connects with Real Tech's Liquid Ai services platform to ensure reliable parameter calibrations over time

REAL TSS PROBE MONITORING SYSTEM

Real Tech's TSS submersible probe utilizes near infrared light for measurement to minimize or eliminate interference from other absorbing compounds. Benefiting from Real Tech's innovative LED technology, accurate and stable measurements are obtained overtime. Maintenance is extremely low with the automatic compressed air cleaning system that is configurable for on-site cleaning demands. The Real Controller provides easy integration to PLCs and plant SCADA systems using a 4-20mA output signal or Modbus.



MONITORING SYSTEM SPECIFICATIONS

CHARACTERISTIC	TECHNICAL DATA
SENSOR	
Parameter	Total suspended solids (TSS)
Range	Depends on model selected. Refer to range chart on page 4
Units	mg/L
Sampling Time	10 seconds
Calibration	Zero to DI water or custom calibration to existing process sample
Cleaning	Automatic pressurized air cleaning system
Self-Diagnostics	Continuous detection of leaks, lamp output, humidity, temperature and electrical fault
Humidity Control	Humidity sensor with desiccant pack
Wavelength	Visible wavelength
Light Source	LED
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 WiFi, additional 4-20mA, cellular modem
Data Logging	Onboard (6 month nominal configuration dependent). Optional remote data logging. Export data via USB
Enclosure	NEMA 4, wall mountable
CLEANING	
Air Clean Frequency	User configurable
Operating Pressure	80-120 PSI
Enclosure	NEMA 4, wall mountable
Air Connection	1/4" tube push in/out
FULL SYSTEM	
Electrical	24VDC 13.4A power adapter (accepts 90-250VAC 50/60Hz)
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 TSS Monitoring System



SELECT A TSS SENSOR

PRODUCT#	TSS (mg/L)
TA2010	0 - 20,000
TA2020	0 - 10,000
TA2040	0 - 5,000
TA2100	0 - 2,000

* 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



SELECT AN AIR CLEAN SYSTEM

PRODUCT #	DESCRIPTION
S-188101	Air cleaning valve module requires on-site air (no compressor)
S-188103	Automatic compressed air cleaning system including compressor

Additional Selections

POLE MOUNTING

PRODUCT #	DESCRIPTION
S-189031	Secure wall mounting attachment. No pole included
S-189032	Secure wall mounting attachment. 5ft pole included
S-189033	Secure wall mounting attachment. 10ft pole included

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.

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