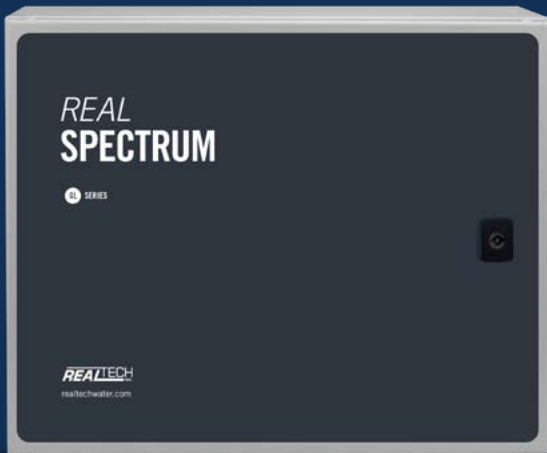


# SPECTRUM SENSOR

WATER QUALITY  
MONITORING  
SOLUTIONS

GL SERIES



## FEATURES & BENEFITS

- Reliable real-time water quality information
- Multiple wavelength UV-VIS sensor (200-750 nm)
- Wastewater to high purity measurement ranges
- Simple optical measurements, no reagents
- Multiple parameter configuration available
- Parameters include BOD, COD, TOC, DOC, UV254, UVT, TSS, nitrate, nitrite, permanganate, colour and many more

## REAL-TIME MONITORING SOLUTION

### Spectrum Sensor

Real Tech's bypass Spectrum sensor provides real-time measurement of organic matter, nitrate and other compounds in water or wastewater. Designed to meet the needs of many monitoring applications, the GL series offers multiple sensor path length selections for the desired measurement range.

### Controllers And Accessories

Our innovative modular product platform ensures our clients gain the real-time water quality monitoring system that meets their specific demands and budget. With multiple controller and accessory options available such as automatic chemical cleaning systems that lower maintenance while improving system performance, Real Tech provides a total solution for all of your unique water quality needs.

### Liquid Ai Compatible

Our Liquid Ai data services complement our real-time water quality monitoring systems. Calibration Health Monitoring ensures accuracy and reliability are maintained so our clients can have the utmost confidence in their results, while our Remote Monitoring platform enables access to data anywhere, anytime.

## MEASUREMENT PRINCIPLE

Real Tech's Spectrum sensor utilizes UV-VIS light for measurement, continuously scanning the water with multiple wavelength, configurable up to 40 between 200-750 nm. The sensor benefits from Real Tech's innovative Split-Sense Pro technology that compensates for lamp drift and fluctuations, providing an accurate and stable output overtime. GL series spectrum sensor parameters include BOD, COD, TOC, DOC, UV254, UVT, TSS, NO<sub>3</sub>, NO<sub>2</sub>, colour, permanganate, contaminant alarms, spectral fingerprint and custom alarms, dependant on application and industry.

MUNICIPAL DRINKING WATER  
MUNICIPAL WASTEWATER  
INDUSTRIAL PROCESS WATER  
INDUSTRIAL WASTEWATER

**REALTECH**  
INC.



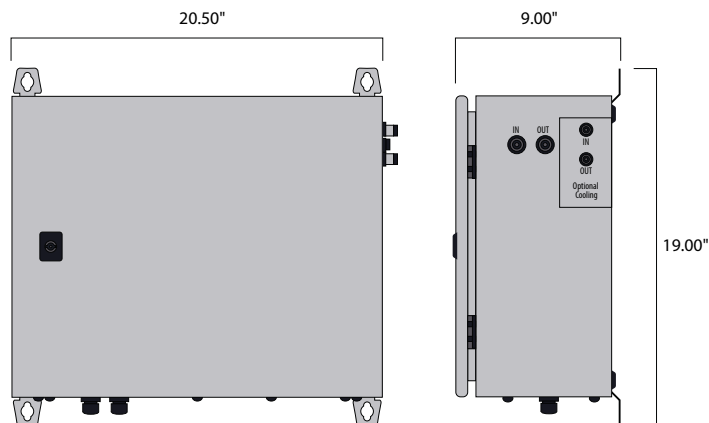
# SPECTRUM SENSOR SPECIFICATIONS

CHARACTERISTIC	TECHNICAL DATA							
	MODEL	GL2010	GL2020	GL2040	GL2080	GL4025	GL4050	GL4150
Path Length	1 mm	2 mm	4 mm	8 mm	25 mm	50 mm	150 mm	
Parameters	BOD, COD, TOC, DOC, UV254, UVT, TSS, nitrate, nitrite, permanganate, colour, contaminant alarms, spectral fingerprint, custom alarm							
Range	Depends on model selected. Refer to range chart on next page.							
Units	Parameter specific (mg/L, cm <sup>-1</sup> , % or PCU)							
Sampling Time	1 minute							
Calibration	Factory calibrated. Field adjustment of calibration is possible.							
Cleaning	In-situ chemical cleaning makes cleaning quick and easy. Automatic chemical cleaning is optional.							
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 detect, system fault, etc.							
Humidity Control	Humidity sensor with large plug-in regenerating desiccant system							
Wavelengths	Configurable up to 40 wavelength between 200-750 nm							
Light Source	Xenon Flash Lamp							
Lamp Life	2-5 years							
Flow Rate	300-1000 mL/min							
Pressure Rating	20 PSI maximum							
Fluid Connections	1/4" tube push-in fittings							
Electrical/Comm.	From controller							
Storage Temp.	-20 to 60°C (-4 to 140°F)							
Operating Temp.	0 to 45°C (32 to 113°F)							
Enclosure	NEMA 4, wall mountable							
Weight	44 lb							
Dimensions	19.0"H x 20.5"W x 9.0"D							
Warranty	2-year limited warranty (Extended care packages available)							
Sensor Upgrades	Cooling Upgrade I, Cooling Upgrade II, Ultra High Temp./Chemical Upgrade							

\* Technical Specifications are subject to change without notice.

## DIMENSIONS

The spectrum sensor is a bypass cabinet instrument installed directly on a wall, railing or system backboard. Sample is supplied to the sensor from either a pressurized source or from an open-channel using an accessory pumping system.



## SENSOR MODELS & RANGE

Includes UV-VIS spectrum sensor, flow cell, calibration bottle and dehumidifier. Controller and accessories sold separately.

MODEL#	PATH LENGTH	BOD (mg/L)	COD (mg/L)	TOC (mg/L)	DOC (mg/L)	UV254 (cm <sup>-1</sup> )	COLOUR (PCU)	NO <sub>3</sub> <sup>-</sup> N (mg/L)	NO <sub>3</sub> (mg/L)	NO <sub>2</sub> <sup>-</sup> N (mg/L)
GL2010	1 mm	0 - 1500	0 - 3000	0 - 800	0 - 800	0 - 20	0 - 10,000	0 - 50	0 - 220	0 - 50
GL2020	2 mm	0 - 750	0 - 1500	0 - 400	0 - 400	0 - 10	0 - 5000	0 - 25	0 - 110	0 - 25
GL2040	4 mm	0 - 375	0 - 750	0 - 200	0 - 200	0 - 5	0 - 2500	0 - 12.5	0 - 55	0 - 12.5
GL2080	8 mm	0 - 187	0 - 375	0 - 100	0 - 100	0 - 2.5	0 - 1250	0 - 6.25	0 - 27.5	0 - 6.25
GL4025	25 mm	0 - 60	0 - 120	0 - 32	0 - 32	0 - 0.8	0 - 400	0 - 2	0 - 8.8	0 - 2
GL4050	50 mm	0 - 30	0 - 60	0 - 16	0 - 16	0 - 0.4	0 - 200	0 - 1	0 - 4.4	0 - 1
GL4150	150 mm	0 - 10	0 - 20	0 - 5.3	0 - 5.3	0 - 0.13	0 - 33	0 - 0.33	0 - 1.45	0 - 0.33

\* Stated ranges are approximate, dependent on industry, site and application - contact Real Tech to confirm model selection

\* Range for TSS, permanganate, contaminant alarms, spectral fingerprint, and custom alarms are site specific, contact Real Tech for details

\* Higher maximum range possible with use of Dilution System option

## CONTROLLERS

PRODUCT #	NAME	DESCRIPTION
S-11TPC	Real Controller Pro	Wall mounted controller with touch panel PC interface (PC inside cabinet model)
S-11TPCD	Real Controller Pro	Wall mounted controller with touch panel PC interface (PC external on door model)

## ACCESSORIES

PRODUCT #	NAME	DESCRIPTION
UVT-078130	Real Clean System I	Automatic chemical cleaning system for use with 2000 series models
UVT-118010	Real Clean System II	Automatic chemical cleaning system for use with 4000 series models
UVT-079121	Pump Clean System I	Self-priming pump and automatic chemical cleaning for use with 2000 series models
UVT-129122	Pump Clean System II	Self-priming pump and automatic chemical cleaning for use with 4000 series models
S-159124	Air Purge Clean System I	Automatic chemical cleaning, air purge and pump (vertical lift less than 8 ft and pumping distance less than 25ft)
S-179125	Air Purge Clean System II	Automatic chemical cleaning, air purge and booster pump (vertical lift exceeds 8ft or pumping distance exceeds 25 ft)
S-179126	Air Purge Clean System III	Automatic chemical cleaning and air purge. Client supplies pump or water is pressurized
S-169092	Dilution System I	Dilution system, automatic chemical cleaning, air purge and pump (vertical lift less than 8 ft and pumping distance less than 25ft)
S-179093	Dilution System II	Dilution system, automatic chemical cleaning, air purge and booster pump (vertical lift exceeds 8ft or pumping distance exceeds 25 ft)
S-179094	Dilution System III	Dilution system, automatic chemical cleaning and air purge. Client supplies pump or water is pressurized
S-1789121	Dual Feed II	Dual feed option includes Digital I/O module for use with controllers

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