SPECTRUM PROBE

GA SERIES

FEATURES & BENEFITS

- Reliable real-time water quality information
- Patent pending multiple wavelength UV-VIS probe (200-400 nm plus 860 nm)
- Operator friendly, low maintenance design
- Simple optical measurements, no reagents
- Multiple parameter configuration available
- Parameters include: BOD, COD, TOC, DOC, UV254, UVT, TSS, nitrate, nitrite, colour, surfactants, contaminant alarms, spectral fingerprint, and custom alarm
- Turbidity compensation included
- Liquid Ai services compatible

REAL-TIME MONITORING SOLUTION

Spectrum Probe
Real Tech's robust submersible Spectrum probe provides affordable real-time measurement of organic matter, nitrite, nitrate and other compounds in water or wastewater. The probe's rugged body is built to withstand harsh environments, with titanium or stainless steel options. Designed to meet the needs of many monitoring applications, the GA series offers multiple 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 compressed air cleaning systems that lower maintenance while improving system performance, Real Tech provides a total solution for all of your unique water quality monitoring needs.
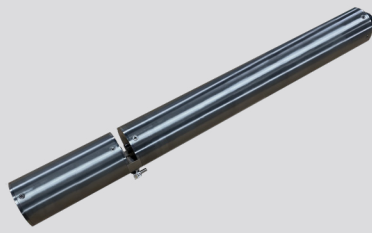
Liquid Ai Compatible
Our Liquid Ai data services complement our real-time water quality monitoring systems. Calibration Health Monitoring ensures accuracy and reliability are maintained so our clients can have the utmost confidence in their results, while our Remote Monitoring platform enables access to data anywhere, anytime.

MEASUREMENT PRINCIPLE

The patent pending Spectrum probe utilizes UV-VIS light continuously scanning the water at wavelengths between 200-400 nm with a resolution of 0.7 nm providing superior measurement performance in the UV light spectrum. Additionally, the Spectrum probe provides absorption measurement at 860 nm to allow further compensation for suspended and colloidal solids in the water that can otherwise reduce measurement accuracy of similar instruments. The probe benefits from Real Tech's innovative technology that compensates for lamp drift and fluctuations, providing an accurate and stable output over time. Spectrum probe parameters include BOD, COD, TOC, DOC, UV254, UVT, TSS, NO_3, NO_2, colour, surfactants contaminant alarms, spectral fingerprint and custom alarms, dependent on application and industry.

MUNICIPAL DRINKING WATER
SURFACE WATER MONITORING
MUNICIPAL WASTEWATER
INDUSTRIAL PROCESS WATER
INDUSTRIAL WASTEWATER

REALTECH
INC.

SPECTRUM PROBE SPECIFICATIONS

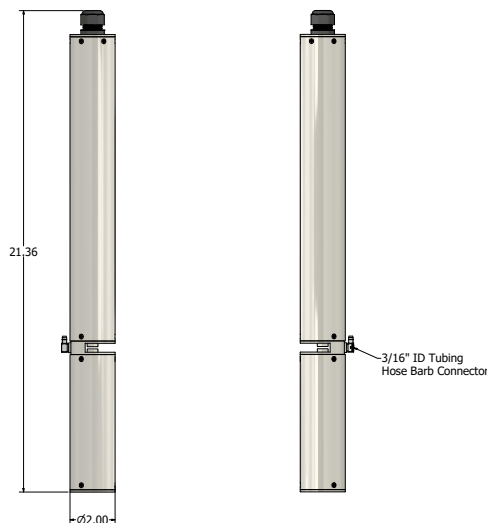| CHARACTERISTIC	TECHNICAL DATA	
Model	GA-X	GA-S
Path Length	0.5, 1, 2, 4, 10 mm	
Parameters	BOD, COD, TOC, DOC, UV254, UVT, TSS, nitrate, nitrite, colour, surfactants, contaminant alarms, spectral fingerprint, custom alarm	
Range	Depends on model selected. Refer to range chart.	
Units	mg/L, ppm, other parameter specific units	
Sampling Time	10 seconds	
Calibration	Factory calibrated. Field adjustment of calibration is possible.	
Cleaning	Automatic compressed air or pressurized water cleaning with optional Probe Clean System	
Self-Diagnostics	Detection and diagnosis of internal system fault	
Alarms	Continuous detection of leaks, lamp output, humidity, temperature and electrical fault	
Humidity Control	Humidity sensor with desiccant pack	
Resolution	0.7 nm	
Wavelengths	200-400 nm plus 860 nm	
Light Source	Xenon Flash Lamp	
Lamp Life	5 years	
Electrical/Comm.	From controller	
Pressure Rating	15 PSI	
Operating Temp.	0 to 45°C (32 to 113°F)*	
Housing Material	Titanium (Grade 2)	Stainless steel (SS 316)
Wetted Materials	Titanium, Epoxy, Sapphire, SS 316, Viton	Epoxy, Sapphire, SS 316, Viton
Weight	1.94 kg (4.25 lb)**	2.92 kg (6.45 lb)**
Ingress Protection Type	IPX8	
Dimensions	20.3" H x 2.0" Diameter	
Warranty	2-year limited warranty (Extended care packages available)	

Technical Specifications are subject to change without notice.

* Operating (water) temperature absolute maximum 55°C (131°F). Instrument performance reduced when operating outside recommended operating range. Contact Real Tech to verify application.

** Weight does not include cable. Cable weight: 0.70kg (1.55lb).

DIMENSIONS FOR SPECTRUM PROBE

Available mounting accessories include fixed pole mounting kit and chain mounting kit

21.36

Ø2.00

3/16" ID Tubing
Hose Barb Connector

PROBE MODELS & RANGE

Includes titanium (-X) or stainless steel (-S) spectrum probe sensor and 35 feet of communication cable.
Controller, mounting kit and cleaning system sold separately.

MODEL#	PATH LENGTH	BOD (mg/L)	COD (mg/L)	TOC/DOC (mg/L)	UV254 (cm^{-1})	COLOUR (PCU)	NO_3^-N (mg/L)	NO_3 (mg/L)	NO_2^-N (mg/L)
GA-X2005 / GA-S2005	0.5 mm	0 - 3000	0 - 6000	0 - 1600	0 - 40	0 - 20,000	0 - 100	0 - 440	0 - 100
GA-X2010 / GA-S2010	1 mm	0 - 1500	0 - 3000	0 - 800	0 - 20	0 - 10,000	0 - 50	0 - 220	0 - 50
GA-X2020 / GA-S2020	2 mm	0 - 750	0 - 1500	0 - 400	0 - 10	0 - 5000	0 - 25	0 - 110	0 - 25
GA-X2040 / GA-S2040	4 mm	0 - 375	0 - 750	0 - 200	0 - 5	0 - 2500	0 - 12.5	0 - 55	0 - 12.5
GA-X2100 / GA-S2100	10 mm	0 - 150	0 - 300	0 - 80	0 - 2	0 - 1000	0 - 5	0 - 22	0 - 5

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

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
S-228070	Probe Clean System	Cleaning valve module requires on-site compressed air or pressured water for automatic probe cleaning
S-228080	Compressed Air System	Compressor for air cleaning when compressed air not available on-site
S-219081	Probe Mounting Kit I	Provides secure mounting attachment for titanium or stainless steel probe to a tank wall or open channel wall. No pole included.
S-219082	Probe Mounting Kit II	Provides secure mounting attachment for titanium or stainless steel probe to a tank wall or open channel wall. 5' pole included.
S-219083	Probe Mounting Kit III	Provides secure mounting attachment for titanium or stainless steel probe to a tank wall or open channel wall. 10' pole included.
S-229085	Chain Mount	Stainless steel chain for mounting probe in open channel

REAL TECH INC.