CHROMIUM VI SENSOR

(CRL) SERIES

FEATURES & BENEFITS

- Affordable real-time chromium VI monitoring
- Multiple wavelength sensor uses UV LED technology for superior measurement performance
- Wastewater to high purity measurement ranges
- Operator friendly, low maintenance design
- Quick and simple optical measurements
- Reagent free operation

REAL-TIME MONITORING SOLUTION

Chromium VI Sensor
Real Tech's bypass Chromium VI sensor provides affordable real-time measurement of chromium VI in water or wastewater. Designed to meet the needs of many monitoring applications, the CRL series offers multiple sensor path length selections to meet 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. Our Remote Monitoring platform is a powerful data management and visualization tool that enables access to data anywhere, anytime.

MEASUREMENT PRINCIPLE

Real Tech's Chromium VI sensor provides superior measurement performance across multiple wavelengths of light using UV LEDs. Many compounds absorb light in the UV-VIS spectrum, and how much the compounds absorb is directly proportional to their concentration. Compounds that may interfere with chromium VI measurement are compensated for using additional reference wavelengths. Real Tech's innovative Chromium VI sensor is advancing water and wastewater management.

MUNICIPAL WASTEWATER
INDUSTRIAL WASTEWATER

CHROMIUM VI SENSOR SPECIFICATIONS

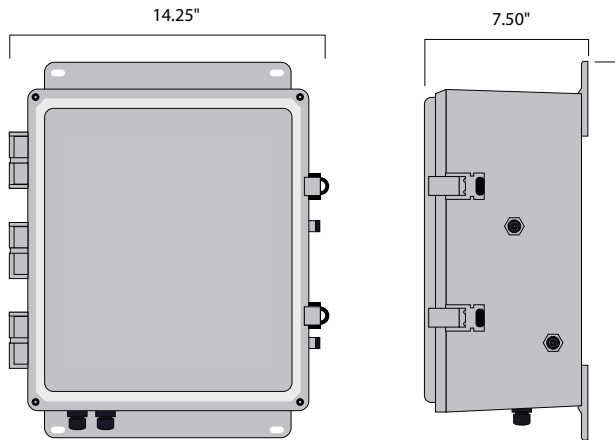| CHARACTERISTIC	TECHNICAL DATA		
Model Series	1000 series	2000 series	4000 series
Path Length	0.5, 1, 2, 4, 10 mm	1, 2, 4, 8 mm	25, 50, 100, 150 mm
Parameters	Chromium VI		
Range	Depends on model selected. Refer to range chart.		
Accuracy	± 1% full scale		
Units	mg/L, ppm		
Sampling Time	30 seconds		
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, leaks, system fault, etc.		
Humidity Control	Humidity sensor with large plug-in regenerating desiccant system		
Wavelength	Multiple wavelengths		
Light Source	UV LED		
Flow Rate	500-1000 mL/min	300-1000 mL/min	
Pressure Rating	85 PSI maximum	20 PSI maximum	
Fluid Connections	3/8" OD tube push-in fittings	1/4" OD tube push-in fittings	
Wetted Materials	Kynar, FEP, Quartz, SS316L, Viton	Kynar, Polyethylene, Quartz, SS 316L, Viton	
Electrical/Comm.	From controller		
Ambient Temp.	0 to 45°C (32 to 113°F)		
Water Temp.	0 to 90°C (32 to 194°F) at 21°C (69.8°F) Ambient temperature		
Enclosure	NEMA 4X, wall mountable		
Weight	22 lb	24 lb	
Dimensions	17"H x 14.25"W x 7.5"D	15.82"H x 13.82"W x 9.00"D	
Warranty	2-year limited warranty (Extended care packages available)		

* Technical Specifications are subject to change without notice.

* Water temperature range based on material compatibility only. Contact Real Tech to verify application.
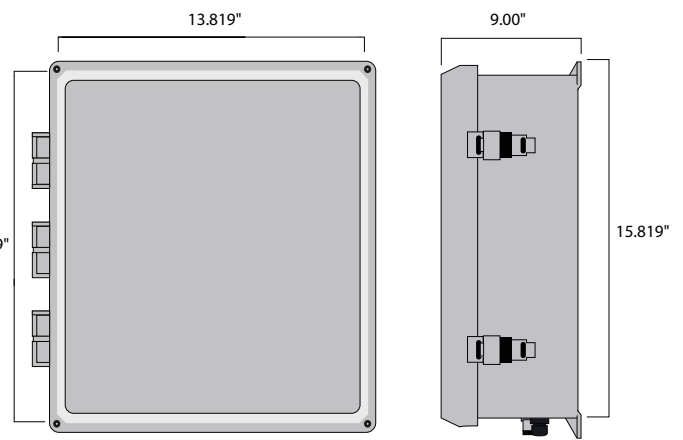
DIMENSIONS

The chromium VI 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.

DIMENSIONS FOR 1000 & 2000 SERIES MODELS

14.25"   7.50"   17.00"

DIMENSIONS FOR 4000 SERIES MODELS

13.819"   9.00"   15.819"   15.819"

SENSOR SELECTION

MODEL SERIES	DESCRIPTION
1000	Ideal for closed loop, high pressure or high solids wastewater monitoring applications
2000	Ideal for general water monitoring applications
4000	Ideal for high purity water monitoring applications

SENSOR MODELS & RANGE

Includes chromium VI sensor, flow cell, calibration bottle and dehumidifier. Controller and accessories sold separately.

MODEL#	PATH LENGTH	CHROMIUM VI (ppm) pH 9 OR HIGHER	CHROMIUM VI (ppm) pH 6-9	CHROMIUM VI (ppm) pH 3-6
CRL1005	0.5 mm	0 - 288	0 - 400	0 - 576
CRL1010	1 mm	0 - 144	0 - 200	0 - 288
CRL1020	2 mm	0 - 72	0 - 100	0 - 144
CRL1040	4 mm	0 - 36	0 - 50	0 - 72
CRL1100	10 mm	0 - 14	0 - 20	0 - 28
CRL2010	1 mm	0 - 144	0 - 200	0 - 288
CRL2020	2 mm	0 - 72	0 - 100	0 - 144
CRL2040	4 mm	0 - 36	0 - 50	0 - 72
CRL2080	8 mm	0 - 18	0 - 25	0 - 36
CRL4025	25 mm	0 - 6	0 - 8	0 - 12
CRL4050	50 mm	0 - 3	0 - 4	0 - 6
CRL4100	100 mm	0 - 1.5	0 - 2	0 - 3
CRL4150	150 mm	0 - 1	0 - 1.5	0 - 2

* Stated ranges are based on testing in deionized water. Interfering substances that may be present in the water may reduce the upper end of the measuring range. Please contact Real Tech to confirm model selection.

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

CONTROLLERS

Controllers include proprietary inputs for Real Tech sensors and accessories.

PRODUCT #	NAME	DESCRIPTION
S--229005	Real Controller Lite	Wall mounted controller with 4-line x 20-character back lit LCD display. Includes modbus RTU (RS485)
S-169000	Real Controller	Wall mounted controller with 4-line x 20-character back lit LCD display. Includes modbus RTU (RS485), 1 channel of 4-20 mA out and digital I/O module
S-11TPC	Real Controller Pro	Wall mounted controller with 12.1" colour LCD touch panel PC interface (PC inside cabinet model). Includes Modbus TCP
S-11TPCD	Real Controller Pro	Wall mounted controller with 12.1" colour LCD touch panel PC interface (PC external on door model). Includes Modbus TCP

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
S-178121	Dual Feed II	Dual feed option includes Digital I/O module for use with controllers

REAL TECH INC.