

CHROMIUM VI SENSOR

WATER QUALITY
MONITORING
SOLUTIONS



FEATURES & BENEFITS

- Affordable real-time chromium VI monitoring
- Multiple wavelength sensor with LED technology
- 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 CR series bypass sensor provides affordable real-time measurement of chromium VI in water or wastewater. Designed to meet the needs of many monitoring applications, the series offers multiple sensor path length selections to meet the desired measurement range.

Controllers and Accessories

Our innovative modular product platform allows a system to be configured around the ideal sensor with controller options and various accessory products, including automatic chemical cleaning systems that lower maintenance while improving system performance and dilution systems that extend the measurement range for highly concentrated wastewaters. We can truly meet the physical demands of any installation, wastewater or high purity water, to ensure reliable, continuous operation.

Liquid Ai Compatible

With the right sensor and hardware configuration, we then offer Liquid Ai data services to complement our monitoring systems. Our Remote Monitoring platform is a powerful data management and visualization tool that enables access to data anywhere, anytime.

MEASUREMENT PRINCIPLE

The chromium VI sensor utilizes light at various wavelengths for measurement. Many compounds absorb light in the UV-VIS spectrum including chromium VI. The absorbance of these compounds is directly proportional to their concentration. Compounds that may interfere with measurement, such as particles, are compensated for using additional reference wavelengths. The result is reliable, low-cost, real-time measurement of chromium VI in water.

MUNICIPAL DRINKING WATER
MUNICIPAL WASTEWATER
INDUSTRIAL PROCESS WATER
INDUSTRIAL WASTEWATER

REALTECH
INC.



CHROMIUM VI SENSOR SPECIFICATIONS

CHARACTERISTIC

TECHNICAL DATA

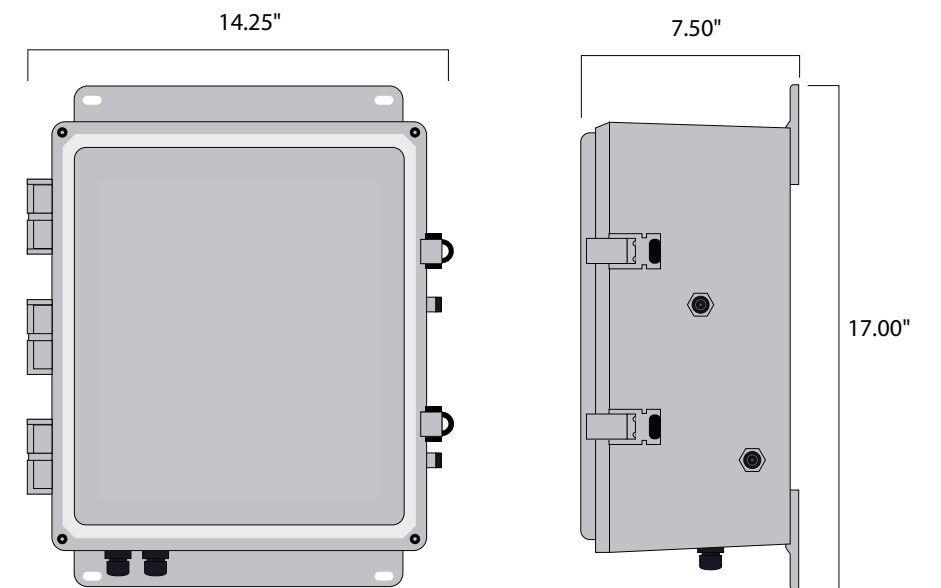
| MODEL | CR2010 | CR2020 | CR2040 | CR2100 | CR4025 | CR4050 | CR4100 | CR4150 |
|-------------------|---|--------|--------|--------|---------------------------|--------|--------|--------|
| Path Length | 1 mm | 2 mm | 4 mm | 10 mm | 25 mm | 50 mm | 100 mm | 150 mm |
| Accuracy | ± 0.5% full scale | | | | | | | |
| Parameters | Chromium VI | | | | | | | |
| Range | Depends on model selected. Refer to range chart on page 4. | | | | | | | |
| Units | Parameter specific (ppm, mg/L) | | | | | | | |
| Sampling Time | 30 seconds | | | | | | | |
| Calibration | Zero to DI water. Factory parameter calibration allows field adjustment as required. | | | | | | | |
| 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 | LED | | | | | | | |
| Technology | Split-Sense Pro | | | | | | | |
| Enclosure | NEMA 4, wall mountable | | | | | | | |
| Flow Rate | 300-1000 mL/min | | | | | | | |
| Pressure Rating | 20 PSI | | | | | | | |
| Fluid Connections | 1/4" OD 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) | | | | | | | |
| Weight | 22 lb | | | | 24 lb | | | |
| Dimensions | 17"H x 14.25"W x 7.5"D | | | | 17.75"H x 15.5"W x 6.75"D | | | |
| Warranty | 2-year limited warranty (Extended care packages available) | | | | | | | |
| Sensor Upgrades | High Temp. Upgrade I, High Temp. Upgrade II | | | | | | | |

* Technical Specifications are subject to change without notice.

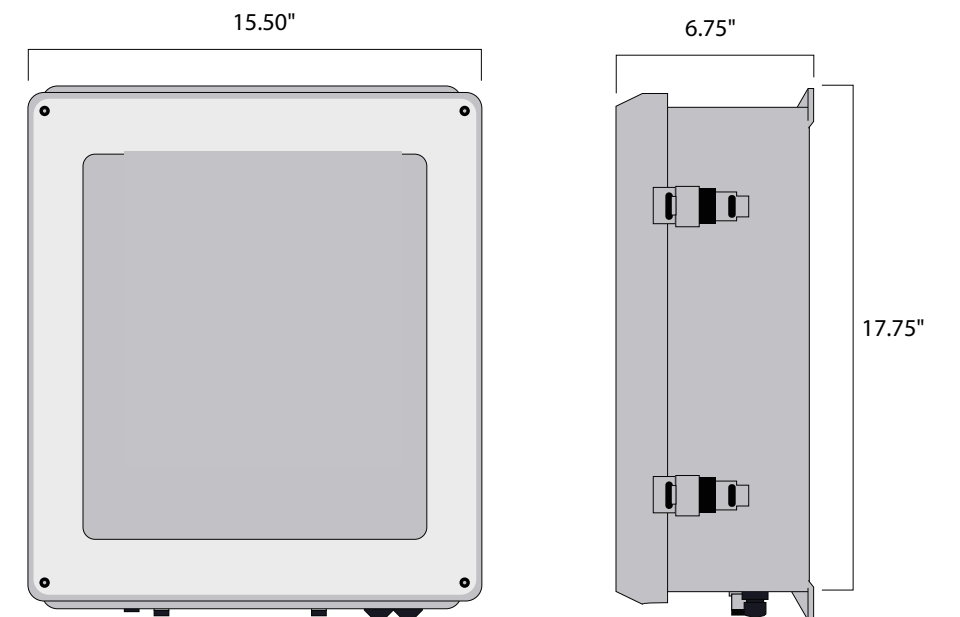
DIMENSIONS

CR series sensors are bypass cabinet instruments 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 CR2000 SERIES MODELS



DIMENSIONS FOR CR4000 SERIES MODELS



MODELS & RANGE

CR series models include 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 |
|--------|-------------|-------------------------------------|-----------------------------|-----------------------------|
| CR2010 | 1 mm | 0 - 144 | 0 - 200 | 0 - 288 |
| CR2020 | 2 mm | 0 - 72 | 0 - 100 | 0 - 144 |
| CR2040 | 4 mm | 0 - 36 | 0 - 50 | 0 - 72 |
| CR2100 | 10 mm | 0 - 15 | 0 - 20 | 0 - 30 |
| CR4025 | 25 mm | 0 - 6 | 0 - 8 | 0 - 12 |
| CR4050 | 50 mm | 0 - 3 | 0 - 4 | 0 - 6 |
| CR4100 | 100 mm | 0 - 1.5 | 0 - 2 | 0 - 3 |
| CR4150 | 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

| PRODUCT # | NAME | DESCRIPTION |
|-----------|---------------------|---|
| S-169000 | Real Controller | Wall mounted controller with 4-line x 20-character back lit LCD display for sensors |
| 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 and 3000 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 and 3000 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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