

# COLOUR SENSOR

CL SERIES



## FEATURES & BENEFITS

- Affordable real-time colour monitoring
- Multiple wavelength sensor uses LED technology for superior measurement performance
- Wastewater to high purity measurement ranges
- Operator friendly, low maintenance LED design
- Reagent free optical measurements
- In accordance with ISO 6271-2016:05
- Simple to install and operate

MUNICIPAL DRINKING WATER  
MUNICIPAL WASTEWATER  
INDUSTRIAL PROCESS WATER  
INDUSTRIAL WASTEWATER

WATER QUALITY  
MONITORING  
SOLUTIONS

## REAL-TIME MONITORING SOLUTION

### Colour Sensor

Real Tech's bypass Colour Sensor provides affordable real-time measurement of colour changes in water or wastewater. Designed to meet the needs of many monitoring applications, the CL 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 monitoring 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 Colour Sensor provides superior measurement performance across multiple wavelengths of light using LEDs. The sensor measures hues of yellow in the water in accordance with ISO 6271-2016:05. Compounds that may interfere with colour measurement, such as particles, are compensated for using an additional reference wavelength. Real Tech's colour sensor is advancing water and wastewater management.

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# COLOUR 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	Colour		
Range	Depends on model selected. Refer to range chart.		
Accuracy	± 0.5% full scale		
Units	PCU, mg/L Pt-Co or HU (hazen units)		
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		
Wavelengths	Visible (VIS)		
Light Source	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)		

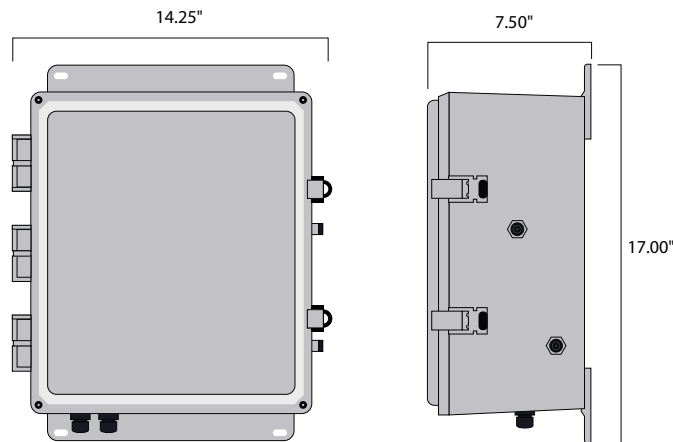
\* Technical Specifications are subject to change without notice.

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

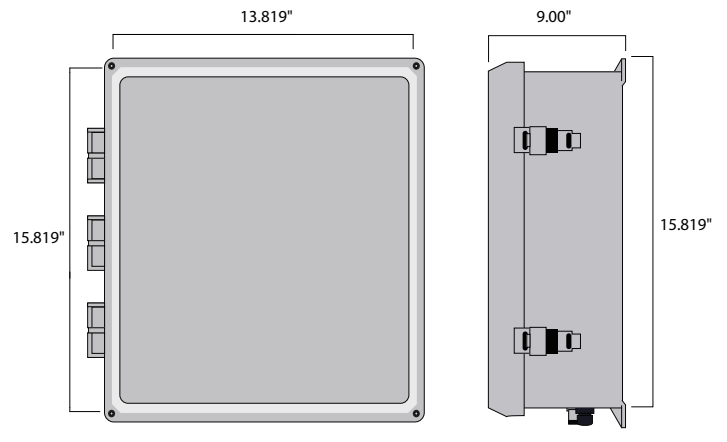
## DIMENSIONS

The colour 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



### DIMENSIONS FOR 4000 SERIES MODELS



## 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 colour sensor, flow cell, calibration bottle and dehumidifier. Controller and accessories sold separately.

MODEL#	PATH LENGTH	COLOUR (PCU)
CL1005	0.5 mm	0 - 20,000
CL1010	1 mm	0 - 10,000
CL1020	2 mm	0 - 5,000
CL1040	4 mm	0 - 2,500
CL1100	10 mm	0 - 1,000
CL2010	1 mm	0 - 10,000
CL2020	2 mm	0 - 5,000
CL2040	4 mm	0 - 2,500
CL2080	8 mm	0 - 1,250
CL4025	25 mm	0 - 400
CL4050	50 mm	0 - 200
CL4100	100 mm	0 - 100
CL4150	150 mm	0 - 66

\* 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

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