

# MULTI-WAVE SENSOR

## SL SERIES



### FEATURES & BENEFITS

- Affordable real-time 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
- Multiple parameter configuration available
- Parameters include BOD, COD, TOC, DOC, UV254, UVT, TSS, colour, algae, permanganate, chromium VI, O<sub>3</sub>, THM, HAA

MUNICIPAL DRINKING WATER  
MUNICIPAL WASTEWATER  
INDUSTRIAL PROCESS WATER  
INDUSTRIAL WASTEWATER

WATER QUALITY  
MONITORING  
SOLUTIONS

### REAL-TIME MONITORING SOLUTION

#### SL Series Multi-Wave Sensor

Real Tech's SL series bypass sensor provides affordable real-time measurement of organic matter and other compounds in water or wastewater. Designed to meet the needs of many monitoring application, 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, to ensure reliable, continuous operation.

#### Real-time Actionable Data

With the right sensor and hardware configuration, we then build a custom calibration to monitor the aggregate organics parameter(s) or compounds of interest in real time, accurately and reliably.

### MEASUREMENT PRINCIPLE

The SL sensor utilizes light at various wavelengths, depending on the desired parameter(s) to be monitored. Many compounds absorb light in the UV-VIS spectrum. 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 for many parameters and compounds, including BOD, COD, TOC, DOC, UV254, UVT, TSS, colour, algae, permanganate, chromium VI, O<sub>3</sub>, THM, HAA.

**REALTECH**  
INC.



# MULTI-WAVE SENSOR

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# SPECIFICATIONS

### CHARACTERISTIC

### TECHNICAL DATA

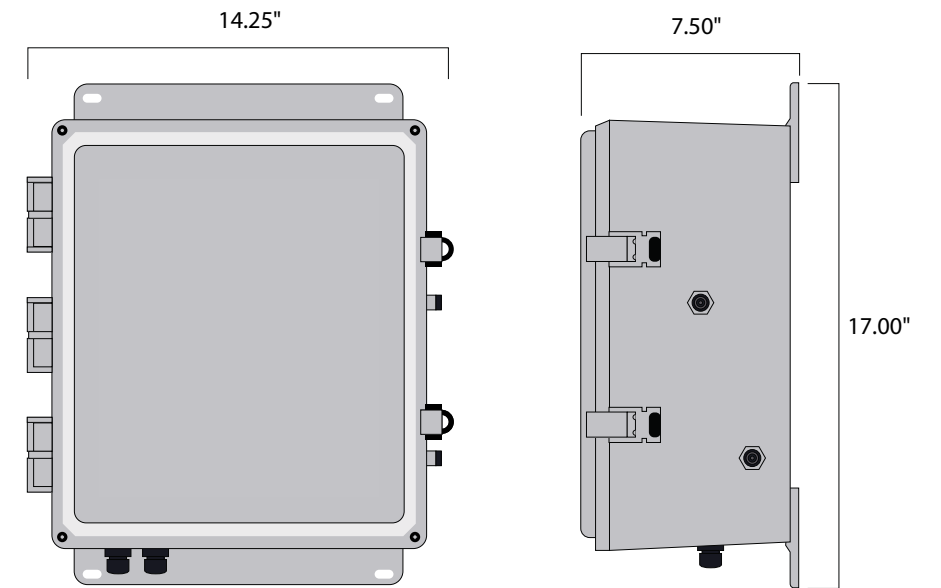
MODEL	SL2010	SL2020	SL2040	SL2100	SL4025	SL4050	SL4100	SL4150
Path Length	1 mm	2 mm	4 mm	10 mm	25 mm	50 mm	100 mm	150 mm
Parameters	BOD, COD, TOC, DOC, UV254, UVT, TSS, colour, algae, permanganate, chromium VI, O <sub>3</sub> , THM, HAA							
Range	Depends on model selected. Refer to range chart on next page.							
Units	Parameter specific (mg/L, cm <sup>-1</sup> , % or PCU)							
Sampling Time	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.

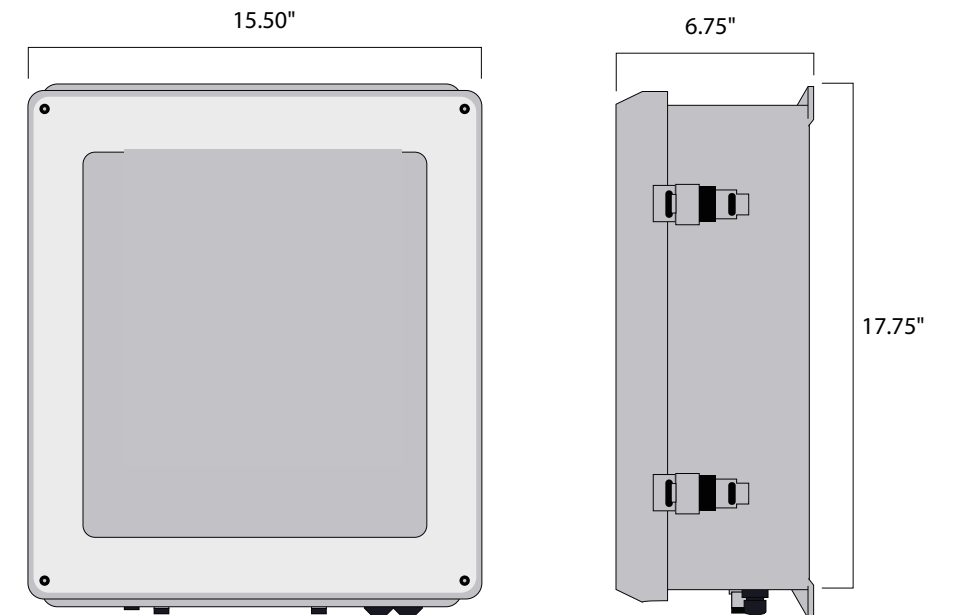
### DIMENSIONS

SL 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 SL2000 SERIES MODELS



### DIMENSIONS FOR SL4000 SERIES MODELS



## MODELS & RANGE

SL series models include multi-wave 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> )	UVT (%)	COLOUR (PCU)
SL2010	1 mm	0 - 1500	0 - 3000	0 - 1200	0 - 800	0 - 20	0 - 100	0 - 6000
SL2020	2 mm	0 - 750	0 - 1500	0 - 600	0 - 400	0 - 10	0 - 100	0 - 3000
SL2040	4 mm	0 - 375	0 - 750	0 - 300	0 - 200	0 - 5	0 - 100	0 - 1500
SL2100	10 mm	0 - 150	0 - 300	0 - 120	0 - 80	0 - 2	1 - 100	0 - 600
SL4025	25 mm	0 - 60	0 - 120	0 - 48	0 - 32	0 - 0.8	16 - 100	0 - 240
SL4050	50 mm	0 - 30	0 - 60	0 - 24	0 - 16	0 - 0.4	40 - 100	0 - 120
SL4100	100 mm	0 - 15	0 - 30	0 - 12	0 - 8	0 - 0.2	63 - 100	0 - 60
SL4150	150 mm	0 - 10	0 - 20	0 - 8	0 - 5.3	0 - 0.13	74 - 100	0 - 40

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

\* Range for TSS, algae, permanganate, chromium VI, O<sub>3</sub>, THM and HAA is site specific, contact Real Tech for details.

\* 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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