

# ALGAE SENSOR

AL SERIES



## FEATURES & BENEFITS

- Affordable, real-time screening for algae in source water
- Outputs as algae or chlorophyll a
- Patented technology to provide superior measurement performance
- Operator friendly, low maintenance design
- Quick and simple optical measurements
- Long life LED technology
- Reagent free operation

MUNICIPAL DRINKING WATER

WATER QUALITY  
MONITORING  
SOLUTIONS

## REAL-TIME MONITORING SOLUTION

### Algae Sensor

Real Tech's bypass Algae sensor provides an affordable screening tool to monitor and alarm for source water quality changes. Designed with patented technology, this practical sensor measures algae (cells per mL) or chlorophyll a ( $\mu\text{g}$  per L) in real time.

### 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 Algae sensor with patented technology uses absorbance of light to measure chlorophyll a, a green pigment found in algae and cyanobacteria that has a natural absorbance peak in the visible light spectrum. An increase in absorbance in this distinct region is directly proportional to an increase in chlorophyll a concentration. Additional wavelengths of visible light are used to compensate for interference such as turbidity (particles). The system then uses the chlorophyll a concentration to estimate algae concentration. This quick and simple screening method gives operators an early warning to prompt further investigation.

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# ALGAE SENSOR SPECIFICATIONS

CHARACTERISTIC	TECHNICAL DATA
Path Length	50, 100, 150 mm
Parameters	Algae or chlorophyll a
Range	Depends on model selected. Refer to range chart.
Units	Algae (cells per mL) or chlorophyll a (µg/L)
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	LED
Flow Rate	300-1000 mL/min
Pressure Rating	20 PSI maximum
Fluid Connections	1/4" OD tube push-in fittings
Wetted Materials	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	24 lb
Dimensions	15.82"H x 13.82"W x 9.00"D
Warranty	2-year limited warranty (Extended care packages available)

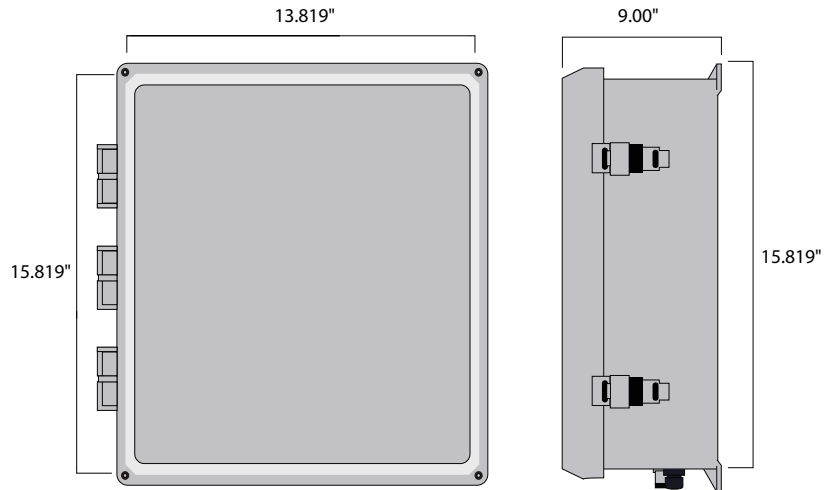
\* Technical Specifications are subject to change without notice.

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

## DIMENSIONS

The algae sensors 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 ALGAE SENSOR



## SENSOR MODELS & RANGE

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

MODEL#	PATH LENGTH	ALGAE (cells per mL)	CHLOROPHYLL-A (µg/L)
AL4050	50 mm	75,000 - 15,000,000	37.5 - 7500
AL4100	100 mm	40,000 - 8,000,000	20 - 4000
AL4150	150 mm	30,000 - 6,000,000	15 - 3000

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

## 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-118010	Real Clean System II	Automatic chemical cleaning system for use with 4000 series models
UVT-129122	Pump Clean System II	Self-priming pump and automatic chemical cleaning 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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