



Rhodamine WT Sensor



Aqua TROLL 500/600/700/800 Rhodamine Sensor

The In-Situ Rhodamine WT sensor measures rhodamine levels in natural water, surface water, groundwater, produced water and aquaculture applications.

Getting Started

1 Install sensor.



Rinse sensor with clean water before use.



Remove restrictor from the instrument.



Remove sensor port plug if installed.



Lubricate o-ring at bottom of sensor.



Install sensor.



Install restrictor in calibration mode.

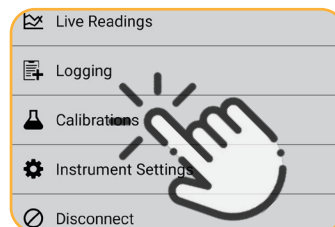


Do not look directly at the sensor LED or point it at the eyes. Doing so can cause eye damage from UV light emitted by the LED.

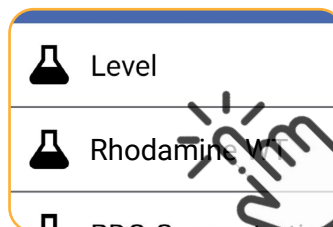
2 Calibrate and deploy.



Connect to the instrument with the VuSitu mobile app.



Select Calibrations from the menu.



Choose the Rhodamine WT option and follow the instructions.



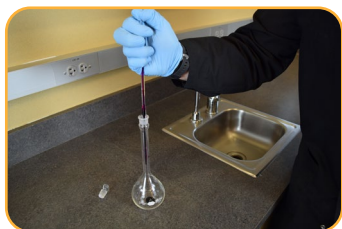
Make sure the restrictor is in deployment mode before use.

Preparing Calibration Standards

Calibrate the Rhodamine WT sensor using one of two methods:

- 1. Deionized Water:** Reset the zero point by performing a calibration in deionized water.
- 2. Rhodamine Standard:** Follow the instructions below to prepare a Rhodamine WT standard.

Preparing Rhodamine WT Calibration Standard



1. Start with a 2.5% Rhodamine WT solution. Pipette 1.0 mL of the solution into a 250 mL Class A volumetric flask.



2. Bring the flask to volume with deionized water. The resulting solution is 100 mg/L Rhodamine WT.



3. To obtain a 200 µg/L concentration, pipette 2.0 mL of the 100 mg/L solution into a 1000 mL flask.



4. Bring the flask to volume with deionized water.



Use an opaque container to store the 100 mg/L solution in a cool, dark place for up to six months.



Prepare the 200 µg/L solution immediately before use and discard after calibration. If desired, use the procedure described above to make a different concentration of Rhodamine WT, such as 400 µg/L. Alter the volume in Step 3 according to the table below to achieve the target concentration.



Use caution when deploying in direct sunlight or environments with highly-reflective surfaces. Ambient light can interfere with sensor readings.

Target Concentration	100 mg/L Rhodamine WT	Expected RFU Value at 25° C
0 µg/L (deionized water)	none	0
100 µg/L	1.0 mL	10
200 µg/L	2.0 mL	20
400 µg/L	4.0 mL	40

* These values are for reference only. Actual values may vary based on user-prepared standards.