

WQ-FL Fluoride Sensor Quick Start Guide

This guide will help you get started. Detailed instructions are available in the WQ-FL manual.

Overview

The WQ-Fluoride includes memory for storing calibrations, a GLP (Good Laboratory Practices) file and a unique ID. The sensor has a concentration range of 0.02 ppm to saturation. The WQ-Fluoride has a reproducibility of $\pm 2\%$ for pH 5 to pH 7 solutions between 0 and 80°C at 0.02 ppm and pH 5 to pH 11 solutions between 0 and 80°C at 10,000 ppm.

What's Included

- WQSensors software & science library CD
- Fluoride sensor
- Fluoride standard solution, 1000 ppm as F^- , 30 mL bottle
- Fluoride ionic strength adjuster (ISA) solution, Total ionic strength adjustment buffer (TSIAB), 30 mL bottle
- Fluoride reference filling solution, 10% KNO_3 , 30 mL bottle
- ISE sensor storage cap

Getting Started

1. Insert the WQSensors CD into the computer CD-ROM drive and follow the installation wizard.
2. Connect the sensor to a USB port on the computer and follow the Windows Driver Installation wizard.
3. Run WQSensors software and readings will be displayed on the **Sensors** tab.



Figure 1: Click the **Sensors** tab to view live data; the connected sensor's serial number and time of last logged reading are displayed at the bottom of the screen



Figure 2: WQSensors secured in a WQ-A sensor arm

Using the Sensor

The **Sensors** tab displays real-time fluoride readings. Data is updated once per second. **Calibrate** and **Log** functions are available by clicking the appropriate button on the left in the WQSensor application window.

Log intervals can be changed from the **Settings** tab. Data reports and Good Laboratory Practices files can be displayed from the **View** tab.

Calibration

The software supports up to a 3-point calibration, however a 2-point calibration will be adequate. For a 2-point calibration, prepare 2 standard solutions that differ in concentration by a factor of 10, and bracket the expected sample range. To calibrate:

1. Place the sensor in the first prepared standard, and allow 30 to 60 seconds for the readings to stabilize.
2. Press the **Calibrate** button. Enter the value of the standard and press **Calibrate** to accept.
3. Rinse the sensor and blot dry. Place it in the second standard and allow time for the sensor to stabilize. Press **Calibrate** and enter the value of the second standard. Press **Enter** or **Calibrate** to accept.

For more information see the online manuals
www.nexsens.com/knowledgebase/manual.htm