

WQ Sensors

Ion Selective Electrodes

- *Direct USB interface to computer*
- *No batteries, meters, or power supplies*
- *PC and Mobile software packages*
- *User-replaceable sensing modules*
- *Double junction ion selective electrodes*

NexSens **WQ Sensors** are the latest in smart sensor technology with direct computer interface. A six foot sensor cable with integral USB connector offers a hassle-free connection to Windows-based PCs and mobile devices. The **WQ Sensor** is powered from the USB port, and data is displayed in real-time directly on the computer screen. When connected, the sensor's unique ID is automatically recognized, and the most recent calibration, factory calibration, and probe status are displayed. These quality sensors, bundled with a versatile PC or Mobile software package, ensure affordable data with minimal effort.

The **ISE WQ Sensors** incorporate a refillable double junction reference electrode with replaceable sensing module. Each sensing module is composed of an ion-specific membrane. A measurement of the electric potential created across the membrane by specific ions is compared to the reference electrode, and a net charge is calculated. This net charge is directly proportional to the concentration of the specific ion. The Bromide, Calcium, Chloride, and Fluoride ISE sensors use solid state membranes, while Ammonium and Nitrate sensors are comprised of PVC membranes. Using industry-standard methods, these ion selective electrodes provide accurate, laboratory-quality measurements in a cost-effective package.

WQ Sensors Software is a powerful sensor interface and data collection program that is included with the purchase of any **WQ Sensor**. The program allows users to quickly calibrate, log, and analyze data from any **WQ Sensor**. Professional PDF reports are generated with the click of a button, and advanced options allow the user to adjust graph scaling, select time intervals, and more. For portable water quality measurements, NexSens **WQ Mobile** software offers a plug-&-play interface to the complete line of **WQ Sensors**. Simply plug the sensor into a Trimble Nomad or other field computer with USB interface and begin collecting data!

WQ Sensors

specifications

WQ-BR	
Ranges	Bromide: 0.4ppm to 79,900ppm (5 x10-6 M to 1 M); Temp: 0 to 80°C; pH: 1 to 12
Reproducibility	±2%
Known Interferences	I-, Cl-, S ₂ -, CN-, NH ₃
WQ-CA	
Ranges	Calcium: 0.02 ppm to 40,000ppm (5 x10-7M to 1 M); Temp: 0 to 40°C; pH: 2.5 to 100
Reproducibility	±4%
Known Interferences	Pb ²⁺ , Hg ²⁺ , Si ²⁺ , Fe ²⁺ , Cu ²⁺ , Ni ²⁺ , NH ₃ , Na ⁺ , Li ⁺ , Tris ⁺ , K ⁺ , Ba ²⁺ , Zn ²⁺ , Mg ²⁺
WQ-CL	
Ranges	Chloride: 1.8ppm to 35,500ppm (5 x10-6 M to 1 M); Temp: 0 to 80°C; pH: 2 to 12
Reproducibility	±2%
Known Interferences	CN-, Br-, I-, OH-, S ₂ - must be absent, NH ₃
WQ-FL	
Ranges	Fluoride: 0.02ppm to saturation (1 x10-6 M to saturation); Temp: 0 to 80°C; pH: 5 to 7 @ 10-6 M; 5 to 11 @ 0.1 M
Reproducibility	±2%
Known Interferences	OH-
WQ-NH4	
Ranges	Ammonium: 0.1 to 18,000 ppm as N (5 x10-6 M to 1 M); Temp: 0 to 50°C; pH: 4 to 10
Reproducibility	±4%
Known Interferences	K ⁺ , Na ⁺
WQ-NO3	
Ranges	Nitrate: 0.1 to 14,000 ppm as N (7 x10-5 M to 1 M); Temp: 0 to 50°C; pH: 2.5 to 11
Reproducibility	±4%
Known Interferences	ClO ₄ -, I-, ClO ₃ -, F-
General	
Minimum Sample Size	3 mL in a 50 mL beaker (5 mL for WQ-FL)
Electrode Length	155mm
Body Diameter	12mm
Cable Length	6ft.
Cap Diameter	16mm
Contents	(1) ISE sensor with 6' cable & integral USB connector (1) 30mL bottle 1000 ppm standard solution (1) 30mL bottle ISA (Ionic Strength Adjuster) solution (1) 30mL bottle reference filling solution (1) ISE storage bottle (1) WQSensor Software & Knowledge Library CD (1) WQSensor Quick Start Guide



parts list

Part #	Description
WQ-TEMP	Temperature sensor
WQ-BR	Bromide sensor
WQ-CA	Calcium sensor
WQ-CL	Chloride sensor
WQ-FL	Fluoride sensor
WQ-NH4	Ammonium sensor
WQ-NO3	Nitrate sensor
WQ-A	Sensor arm for up to 5 sensors
WQ-PLATE	Magnetic stir plate
WQ-STIR	Micro-stirrer



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