

WaterSentinel™

PRE-PRODUCTION PROTOTYPE

ICx Technologies has developed a continuous water monitor for detection of chemical warfare agents (CWAs). This monitor is based on the enzyme polymer technology behind the proven Agentase™ CAD-Kit – our point detection system for CWAs and toxic industrial chemicals (TICs). The enzymatic detection capabilities are highly sensitive to chemical agents yet extremely resistant to potential environmental and chemical interferences.

The WaterSentinel™ carries two independently operating detection cartridges. Each cartridge contains the consumables for the detection chemistries. The cartridges are easy to handle and require attention only once a month. Currently, there is one cartridge for nerve agent detection (all G & V series) and one for blood agent detection (AC and CK). Future developments include expanding the capability of the monitor for other CWA or TIC detection. The monitor can be configured with any combination of detection cartridges which can be replaced in less than one minute.

The WaterSentinel provides users the capability to remotely monitor most water sources for CWAs. Once the detection cartridges are installed and the WaterSentinel is started, operational information can be transmitted to a remote user via an Ethernet connection.

Potential installation sites include water treatment facilities and monitoring locations throughout the water distribution system. The WaterSentinel can also be used to sample product water from a purification unit or to protect the water supply at a high visibility target.



FEATURES

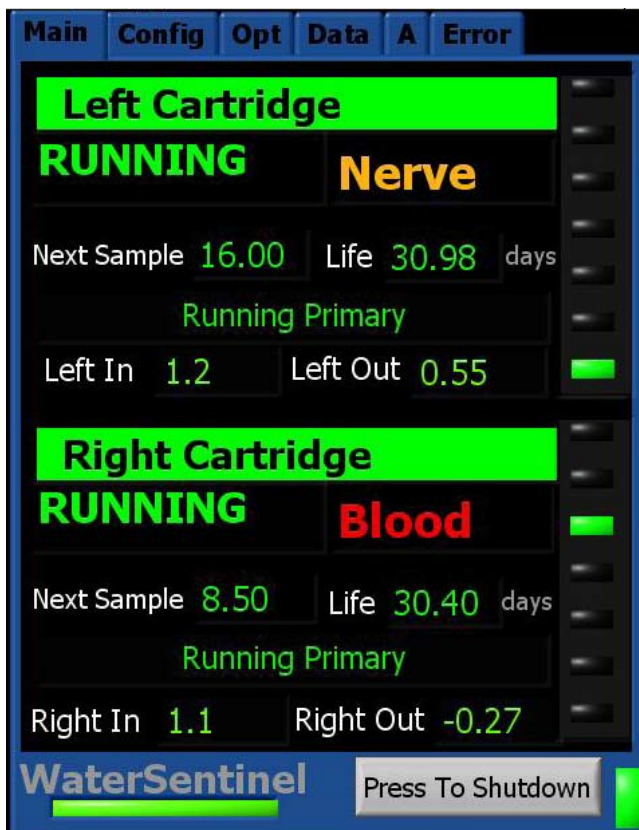
- Detects nerve or blood agents at levels below those required for DoD drinking water
- Operates for 30 days hands free
- Extremely low false-positive incidence rate
- Collects and stores water samples to confirm positive detection events
- Onboard algorithm enables real-time agent detection
- Retractable handle and heavy duty urethane wheels
- Compatible with chlorine and chloramine
- Can be used with most water sources (pressurized/ non-pressurized; tap, fresh and salt water)
- Non-toxic effluent



NEW THREATS.
NEW THINKING.®

SPECIFICATIONS

Detection Capability	Nerve and blood agents (more in development)
Dimensions	24" x 12" x 9" (Airline carry-on size)
Weight	Monitor with cartridges <50 lbs Without consumables <30 lbs
Communication	Standard Ethernet port
Power requirement	110V standard wall outlet
Cartridges	Monthly replacement
Alarms	Audible and visual at monitor location and remotely
Display	5.7" intuitive touch-screen communicates operational data
Shelf Life	Cartridge life 2 years at room temperature



Display (above) shows two cartridges simultaneously sampling. In this example, the nerve agent cartridge was just installed and is undergoing automatic priming.



Performance of the WaterSentinel has been demonstrated in live agent tests at independent third party facilities. The WaterSentinel is also deployed at several test sites where long term operational studies are in progress.

Detection limits and interference test data are available upon request for personnel who are qualified to receive ITAR controlled information.



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