



MSA SafeCWA™ Chemical Warfare Agent Detector [for Homeland Security]

The SafeCWA Chemical Warfare Agent Detector, part of the MSA SafeSite™ Hazardous Gas Detection System, simultaneously detects and categorizes Chemical Warfare Agents (CWAs) in the event of a terrorist attack. The ability of the SafeCWA unit to detect chemical threats effectively helps first responders, law enforcement and government agents warn of and respond to chemical weapons of mass destruction.

MSA's SafeCWA Detector uses Surface Acoustic Wavelength (SAW) technology, providing selective analysis to avoid misleading warnings and false alarms through a thermally modulated sample collection method. SAW sensors convert chemical or physical input into an

acoustical variation. SAW chemical sensors take advantage of their inherent surface sensitivity to function and are the preferred signal processing components for varied applications.

If a CWA is present, a qualitative signal will be discreetly displayed on the unit. In addition, this signal will also be conveyed via wireless RF link to the remote SafeCOM™ Command Center, part of the MSA SafeSite Hazardous Gas Detection System.

The SafeCWA unit is easily transported and mounted, and may be battery or line-powered as a stand-alone unit. It may also be integrated into the entire SafeSite Hazardous Gas Detection System. The SafeCWA Detector also performs self- and system checks with easy and economi-

cal field maintenance and operation. Round-the-clock detection of CWAs, for the confidence and reliability that you expect from MSA.

Applications and Features

- Applications include emergency response at public events and mass transit centers, and perimeter and building protection, meeting the demand for continuous detection of CWAs
- Communicates live readings to the SafeSite's SafeCom Command Center via a wireless network
- Qualitative go/no-go display with large alarm indicators
- Factory-calibrated and ready for quick deployment and operation.



Design

- Surface Acoustic Wavelength (SAW) technology, a preferred technology for providing complex signal processing that functions in a sturdy self-contained unit, designed to work in complex environmental conditions. The advantages of SAW chemical sensors include high selectivity and fast response. The dynamic range of a SAW chemical sensor is 5-6 orders of magnitude, dependent upon the chemical vapor being measured.
- Excellent temperature stability and reliability as well as redundant pumps and filters allow for easy operation and infrequent field maintenance and calibration.
- High, consistent selectivity to concentrations of nerve and blister agents within varied environments. Also wide sensor range for detection of organic compounds from very light to very heavy volatile extremes, as the ability to detect various vapors is determined by the molecular weight and partial vapor pressure.
- Operates as stand-alone, wireless or permanently integrated small, rugged, and reliable unit within the MSA SafeSite Hazardous Gas Detection System network.

Specifications

Sensor Technology	Surface Acoustic Wave Microsensor Array
SAW Sensors Analysis Time	20 seconds
Warm-up Time	Less than 5 minutes
CWA Alarm Thresholds	Nerve Agents (G) Fast Mode-0.3 to 1.0 mg/m or (0.04 to 0.16 ppm) Blister Agents (H) Fast Mode-1.0 mg/m or (0.14 ppm)
Operating Temperature	-20° to 50° C, -4° to 122° F
Operating Humidity	0 to 95% non-condensing
Weight/Unit Alone	40 lbs
Dimensions/Unit Alone	24.75" X 19.5" X 9.5"
Weight/In Case (wheeled)	54 lbs
Dimensions/In Case	31.5" x 22.875" x 18.875"

Note: This Data Sheet contains only a general description of the product shown. While uses and performance capabilities are described, under no circumstances should the product be used except by qualified, trained personnel, and not until the instructions, labels or other literature accompanying the product have been carefully read and understood and the precautions therein set forth followed. Only they contain the complete and detailed information concerning this product.

Data Sheet 07-2070
Feb 2004 (L)
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