

CHEMSENSE™ PROTECT

Continuous, Autonomous Air Monitor for Chemical Threat Detection



The CheMSense Protect provides 24/7/365 continuous air monitoring for critical mission facilities, key infrastructure, and mobile platforms. It detects potential CWA (chemical warfare agents) and TIC (toxic industrial chemicals) threats using MDMS™ (multi-dimensional mass spectrometry) with a response time of under 20 seconds and identifies potential threats by name, supporting fast decisions in critical environments.

The Protect uses dual ionization—atmospheric pressure chemical ionization (APCI) and photo electron impact ionization (PEII)—to deliver high sensitivity and accurate analysis across a broad range of chemical threats. It also introduces multi-dimensional mass spectrometry (MDMS), allowing rapid threat assessment without membranes or filters and keeping maintenance and consumable costs low. The Protect deploys quickly, delivers results in under 20 seconds, and supports full bidirectional network control and communication.

FAST DETECTION, FEW FALSE ALARMS, POWERED BY MDMS

The CheMSense Protect delivers an extremely low false alarm rate while detecting harmful chemicals in under 20 seconds. Its MDMS analysis maintains high sensitivity without membranes, filters, or manual calibration, helping operators stay focused on the mission rather than routine upkeep.

CONTINUOUS MONITORING WHERE AND HOW YOU NEED IT

Integrate it into new platforms or existing systems to establish continuous air monitoring where required. The CheMSense Protect delivers reliable results across diverse configurations, from fixed sites to mobile platforms.

SIMPLE MAINTENANCE, EASY OWNERSHIP

There's no need to replace or store costly membranes or filters. The system's self diagnostics support a straightforward annual preventive maintenance routine, reducing downtime and overall operating costs.

SPECIFICATIONS

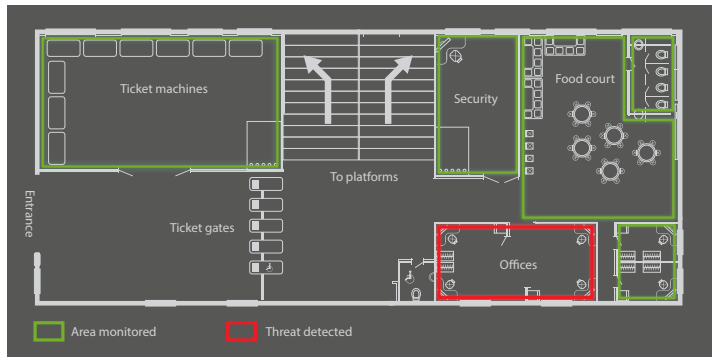
Specifications	
Chemical Threats	CWAs and TICs (customizable)
Operating Temperature	0°C to 40°C
Operating Humidity	Up to 95% non-condensing
Dimensions	12"x13.5"x8" (30.5cm x 34.3cm x 20.3cm)
Weight	21 lbs. (9.5 kg)
Power supply	Input voltage of 100–120/220–240 VAC, 50/60 Hz, and 5 A
Sample Introduction	Continuous vapor sampling via dual-stage vacuum system
Consumables	None
Connectivity	Ethernet, USB-C, HDMI
Communications	Griffin Application Programming Interface (GAPI), Thin Client/Monitor
Alarm Notification	LED indicator, 24V alarm relay, API
Calibration	Built-in automated tuning, no user calibration required
Training	Operator and support training available.
Service interval	Routine maintenance annually with simple user serviceability
Indicator panel	Located on front of instrument to show power, standby/ready, active, detection alarm, and diagnostics
Compliance	CE, FCC, MilStd 810G
Mass Spectrometer	
Analyzer / MS ⁿ	Stepped Linear Trap (SLT) with Highly Efficient MDMS
DDA	Data Dependent analysis
Scan Range	40 to 500 amu, with 0.7 mass resolution
Ionization type	Dual ionization (APCI and PEII), non-radioactive
Vacuum System	Self-Contained
Accessories	
Confidence Checker	Simple, safe reference standard
PM and Service Toolkit	User-capable annual maintenance
Shock/vibration Mount	Capability for Vehicle and Shipboard Integration and Applications



Stadium



Subway



Networked Chemical Threat Detection with CheMSense Protect

Specifications are subject to change without notice.
For the most up-to-date specs, go to www.defense.flir.com

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