



Teledyne FLIR Defense Launches 'CheMSense™ Protect' for Continuous Air Monitoring Chemical Detection

Breakthrough technology provides non-stop air monitoring for public venues, transit systems, defense needs and more, with unmatched 20-second response time

Leverages Multi-Dimensional Mass Spectrometry (MDMS) for industry-leading speed and accuracy with lower maintenance costs

PARIS, June 17, 2026 — Teledyne FLIR Defense, a pioneer in intelligent sensing solutions and part of Teledyne Technologies Incorporated (NYSE:TDY), announced the launch of its advanced CheMSense™ Protect continuous and autonomous air monitor for rapid chemical detection. As the first commercially available chemical detection system utilizing Teledyne's Multi-Dimensional Mass Spectrometry (MDMS™) technology, CheMSense Protect represents a major leap forward in speed and sensitivity, equipping real-world infrastructure with fast positive identification of threats and one of the lowest unit maintenance costs on the market.

[CheMSense Protect](#) monitors airflow non-stop and can detect and identify potential Chemical Warfare Agent (CWA) and Toxic Industrial Chemical (TIC) threats in less than 20 seconds, far faster than the current industry standard of several minutes. That response time makes CheMSense Protect vital in environments where rapid detection can limit dangerous, or even deadly, chemical exposure and spread – for example, transit systems, public venues and event spaces, or on defense platforms such as ships and military vehicles.

“CheMSense Protect is the culmination of years of research and development, resulting in an innovative solution that dramatically improves chemical threat response,” said Clint Wichert, Vice President of Detection at Teledyne FLIR Defense. “By cutting detection time to under 20 seconds, CheMSense Protect can deliver a crucial, potentially life-saving advantage to operators tasked with public safety missions.

“With its seamless system integration, small footprint, and superior accuracy, CheMSense Protect advances critical infrastructure and public safety protection into a more rapid and less costly science,” Wichert added.

Multi-Dimensional Mass Spectrometry (MDMS) enables the industry's most rapid threat assessment and delivers high sensitivity without requiring membranes, filters, or manual calibration. This keeps maintenance and consumables costs low, while also eliminating the trade-off between speed and accuracy. CheMSense Protect's improved sensitivity also reduces the risk of false detection, with an extremely low false-alarm rate through the use of dual ionization – atmospheric pressure chemical ionization and photo electronic impact ionization.

Already fielded in real-world civilian and military applications, CheMSense Protect has made a notable impact for customers and industry partners.

“BMD is proud to continue our partnership with Teledyne FLIR providing its CheMSense Protect to deliver continuous, real-time air monitoring for detection and identification of chemical threats in our customers’ critical environments, inclusive of maritime applications through opportunities to update the embedded legacy Teledyne FLIR mass spectrometry sensors for our military customers,” said BMD, Spa. President Riccardo Carcano.

CheMSense Protect is designed and built by Teledyne FLIR Defense at its facilities in West Lafayette, Ind. It is now available for customer orders, with deliveries beginning in Q3 2026. Visit Teledyne FLIR Defense at Eurosatory in Hall 5A, Stand A129, or learn more [online](#).

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About Teledyne FLIR Defense

Teledyne FLIR Defense has been providing advanced, mission-critical technology and systems for more than 45 years. Our products are on the frontlines of the world’s most pressing military, security and public safety challenges. As a global leader in thermal imaging, we design and build sophisticated surveillance sensors for air, land and maritime use. We develop the most rugged, trusted unmanned air and ground platforms, as well as intelligent sensing devices used to detect chemicals, biological agents, radiation and explosives. At Teledyne FLIR Defense we bring together this expertise to deliver solutions that enable critical decisions and keep our world safe – from any threat, anywhere. To learn more, visit us [online](#) or follow [@flir](#) and [@flir_defense](#).

About Teledyne Technologies

Teledyne Technologies is a leading provider of sophisticated digital imaging products and software, instrumentation, aerospace and defense electronics, and engineered systems. Teledyne's operations are primarily located in the United States, the United Kingdom, Canada, and Western and Northern Europe. For more information, visit Teledyne's website at www.teledyne.com.

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