

Food Safety Monitoring Systems Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 - 2034

<https://marketpublishers.com/r/F9C4C224B434EN.html>

Date: May 2025

Pages: 135

Price: US\$ 4,850.00 (Single User License)

ID: F9C4C224B434EN

Abstracts

The Global Food Safety Monitoring Systems Market was valued at USD 20.2 billion in 2024 and is estimated to grow at a CAGR of 7.4% to reach USD 40.4 billion by 2034, driven by the escalating number of foodborne illnesses and contamination incidents. As international food trade becomes more interconnected, maintaining consistent safety and quality has become a growing concern. With food items often passing through multiple countries before reaching consumers, the demand for intelligent monitoring systems has surged. These systems offer capabilities like automated data gathering, real-time surveillance, and predictive analytics, ensuring end-to-end safety from source to shelf.

Compliance with international food laws and regulatory frameworks is now a top priority, prompting businesses to adopt solutions that support requirements such as the EU General Food Law and the United States' Food Safety Modernization Act. In addition to meeting regulatory standards, these systems play a critical role in protecting brand integrity and reducing financial exposure due to product recalls or non-compliance.

In 2024, the temperature sensors and controllers segment generated USD 6.8 billion and is projected to climb to USD 12 billion by 2034. These tools are essential in food safety monitoring as they help minimize microbial risks and preserve the quality of perishable goods across various points in the supply chain. Their application spans processing, transportation, cold storage, and retail operations. Whether in large-scale manufacturing or smaller facilities, these systems offer dependable, scalable, and integrated solutions that fit various operational needs.

The direct distribution channel captured a significant share of 62.9% in 2024 and is set

to grow at a CAGR of 7.3% from 2025 through 2034. Direct channels allow providers of food safety monitoring systems to engage closely with end users, creating opportunities to offer customized technology, responsive support, and extended service agreements. These direct relationships help system vendors cater to unique operational demands and build long-term partnerships with clients in manufacturing and processing sectors.

United States Food Safety Monitoring Systems Market generated USD 4.1 billion in 2024 and is projected to grow at a CAGR of 7% through 2034. The country remains a global leader due to its robust regulatory environment and advanced food production landscape. Agencies responsible for food safety strictly enforce regulations that ensure the industry's commitment to traceability and compliance. High consumer expectations around food quality and safety, frequent regulatory audits, and widespread adoption of cutting-edge technologies—including IoT-enabled sensors and AI-powered analytics—are key contributors to the strong market growth in the region.

Key players leading the Food Safety Monitoring Systems Market include Honeywell International Inc., Shimadzu Corporation, Bio-Rad Laboratories, Inc., ABB Ltd., Rockwell Automation, Inc., Mettler-Toledo International Inc., 3M Company, General Electric (GE), Siemens AG, Thermo Fisher Scientific Inc., Yokogawa Electric Corporation, Endress+Hauser Group, Danaher Corporation, Emerson Electric Co, and Agilent Technologies, Inc. To solidify their market presence, companies in the food safety monitoring systems space are deploying several strategic initiatives. Many are investing heavily in R&D to enhance system accuracy, integration, and automation. Others are focusing on software and hardware interoperability to offer seamless monitoring across different stages of the supply chain. Strategic partnerships with food producers and processors help increase adoption, while regional expansion efforts aim to address growing demand in developing markets.

Companies Mentioned

3M, ABB LTD., AGILENT TECHNOLOGIES, INC., BIO-RAD LABORATORIES, INC., DANAHER CORPORATION, EMERSON ELECTRIC CO, ENDRESS+HAUSER GROUP, GENERAL ELECTRIC (GE), HONEYWELL INTERNATIONAL INC., METTLER-TOLEDO INTERNATIONAL INC., ROCKWELL AUTOMATION, INC., SHIMADZU CORPORATION, SIEMENS AG, THERMO FISHER SCIENTIFIC INC., YOKOGAWA ELECTRIC CORPORATION

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- 11.13 Siemens AG
- 11.14 Thermo Fisher Scientific Inc.
- 11.15 Yokogawa Electric Corporation

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