

Factory Automation Solutions Market Forecasts to 2032 - Global Analysis By Component (Hardware, Software, and Services), Technology, Application, End User and By Geography

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Abstracts

According to Statistics MRC, the Global Factory Automation Solutions Market is accounted for \$40.07 billion in 2025 and is expected to reach \$84.79 billion by 2032 growing at a CAGR of 11.3% during the forecast period. Factory Automation Solutions encompass technology-driven systems designed to streamline and control industrial manufacturing activities with minimal manual effort. They integrate intelligent equipment, robotics, sensing devices, and digital platforms such as control systems, manufacturing execution software, and data analytics tools. These solutions allow continuous monitoring, accurate process control, early fault detection, and standardized output quality. By optimizing workflows and resource utilization, factory automation enhances efficiency, workplace safety, and scalability, enabling manufacturers across multiple sectors to achieve faster production, lower operational expenses, and greater competitiveness.

Market Dynamics:

Driver:

Integration of AI and Machine Learning

Manufacturers are leveraging AI-driven analytics to enhance predictive maintenance, quality inspection, and real-time process optimization. Machine learning algorithms enable systems to continuously learn from production data and improve operational accuracy over time. This reduces unplanned downtime, minimizes waste, and improves

overall equipment effectiveness across factories. Vision systems powered by AI are also transforming defect detection and robotic guidance. As industries move toward smart manufacturing, AI-enabled automation is becoming a core competitive differentiator. The demand for autonomous, self-optimizing production lines is therefore rising steadily.

Restraint:

Complexity of integration with legacy systems

Many factories still operate with outdated machinery that lacks digital connectivity and standardized interfaces. Retrofitting such equipment requires customized solutions, increasing implementation time and costs. Compatibility issues between old control systems and new software platforms can disrupt operations during deployment. Skilled technical expertise is often required to manage hybrid environments, creating additional dependency on system integrators. Small and mid-sized manufacturers, in particular, face budget and resource constraints. These factors collectively slow the pace of large-scale automation adoption.

Opportunity:

Cloud and edge computing adoption

Cloud platforms enable centralized monitoring, data analytics, and remote management of production assets across multiple facilities. Edge computing complements this by processing data closer to machines, reducing latency and improving real-time decision-making. This hybrid approach enhances system responsiveness and supports advanced use cases such as digital twins and adaptive control. Manufacturers benefit from scalable infrastructure without heavy upfront IT investments. Cloud-based automation also simplifies software updates and integration of new functionalities. As connectivity improves, cloud and edge-enabled factories are gaining wider acceptance.

Threat:

Economic uncertainty and high interest rates

Capital-intensive automation projects are often delayed during periods of financial uncertainty. Higher borrowing costs discourage manufacturers from committing to long-term modernization initiatives. Small enterprises are particularly vulnerable, as they rely

more heavily on external financing. Fluctuating raw material prices further strain industrial budgets and impact profitability. Uncertain demand conditions can also reduce production expansion plans. Together, these macroeconomic pressures may temporarily slow market growth.

Covid-19 Impact:

The COVID-19 pandemic had a mixed impact on the factory automation solutions market. Initial lockdowns disrupted manufacturing operations and delayed automation projects worldwide. Supply chain interruptions affected the availability of components such as sensors, controllers, and robotics hardware. However, the crisis highlighted the importance of automation in maintaining production continuity with minimal human intervention. Manufacturers increasingly adopted robotics and remote monitoring to address labor shortages and safety concerns. In the post-pandemic phase, automation is viewed as a strategic necessity rather than an optional investment.

The hardware segment is expected to be the largest during the forecast period

The hardware segment is expected to account for the largest market share during the forecast period, due to its foundational role in factory automation systems. Components such as industrial robots, PLCs, sensors, drives, and control devices are essential for automated operations. Rising deployment of robotic arms and machine vision hardware is boosting segment demand. Hardware upgrades are often the first step in automation projects, driving consistent revenue generation. Advances in sensor accuracy and controller performance are improving production reliability. Industries such as automotive and electronics heavily invest in automation hardware.

The pharmaceuticals segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the pharmaceuticals segment is predicted to witness the highest growth rate, due to increasing emphasis on precision and compliance. Drug manufacturers are adopting automation to ensure consistent quality and regulatory adherence. Automated systems reduce human error in processes such as filling, packaging, and inspection. Rising demand for personalized medicines is also driving flexible and modular production lines. Digital batch records and real-time monitoring improve traceability and audit readiness. Automation supports faster scale-up of production during health emergencies.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, due to early adoption of advanced manufacturing technologies. The region has a strong presence of automation solution providers and technology innovators. High labor costs are encouraging manufacturers to invest in automation to improve productivity. Industries such as automotive, aerospace, and electronics are heavily automated in this region. Government initiatives are supporting smart manufacturing and Industry 4.0 adoption. Robust digital infrastructure further facilitates integration of advanced automation systems.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, owing to rapid industrialization and expanding manufacturing capacity. Countries such as China, India, and South Korea are investing heavily in factory modernization. Rising labor shortages and wage pressures are accelerating automation adoption. Governments are promoting smart factory initiatives through policy support and incentives. Growth of electronics, automotive, and pharmaceutical manufacturing is boosting demand for automation solutions. Increased foreign direct investment is also driving technology transfer.

Key players in the market

Some of the key players in Factory Automation Solutions Market include Siemens AG, General Electric, ABB Ltd., Yaskawa Electric, Rockwell Automation, Keyence Corporation, Schneider Electric, Bosch Rexroth, Honeywell, KUKA AG, Mitsubishi Electric, FANUC Corporation, Emerson Electric, Omron Corporation, and Yokogawa.

Key Developments:

In July 2025, Siemens AG announced that it has completed the acquisition of Dotmatics, a leading provider of Life Sciences R&D software headquartered in Boston and Portfolio Company of global software investor Insight Partners, for an enterprise value of \$5.1 billion. With the transaction now completed, Dotmatics will form part of Siemens' Digital Industries Software business, marking a significant expansion of Siemens' industry-leading Product Lifecycle Management (PLM) portfolio into the rapidly growing and complementary Life Sciences market.

In July 2025, Honeywell announced that it has acquired from Nexceris its Li-ion Tamer business, a leading off-gas detection solution for lithium-ion (li-ion) batteries that detects thermal runaway events. The acquisition enhances Honeywell's portfolio of best-in-class fire life safety technologies within its Building Automation segment and emerged from a partnership with Nexceris over the past 5 years to strategically address lithium-ion battery system safety. The transaction is expected to be immediately accretive to Honeywell's financials.

Components Covered:

Hardware

Software

Services

Technologies Covered:

Supervisory Control & Data Acquisition (SCADA)

Programmable Logic Controllers (PLC)

Distributed Control Systems (DCS)

Manufacturing Execution Systems (MES)

Human-Machine Interface (HMI)

Other Technologies

Applications Covered:

Manufacturing Process Automation

Quality Control & Inspection

Predictive & Preventive Maintenance

Supply Chain & Material Handling

Production Analytics & Optimization

Safety & Security Automation

Other Applications

End Users Covered:

Automotive

Electronics & Semiconductors

Food & Beverage

Pharmaceuticals

Chemicals & Petrochemicals

Energy & Power

Packaging & Processing

Metals & Mining

Other End Users

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

Contents

1 EXECUTIVE SUMMARY

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Technology Analysis
- 3.7 Application Analysis
- 3.8 End User Analysis
- 3.9 Emerging Markets
- 3.10 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL FACTORY AUTOMATION SOLUTIONS MARKET, BY COMPONENT

- 5.1 Introduction
- 5.2 Hardware
 - 5.2.1 Sensors
 - 5.2.2 Controllers
 - 5.2.3 Switches & Relays
 - 5.2.4 Industrial Robots
 - 5.2.5 Field Instruments & Others
- 5.3 Software
 - 5.3.1 Manufacturing Execution Systems (MES)
 - 5.3.2 Human-Machine Interface (HMI) Software
 - 5.3.3 Digital Twin & Simulation Software
 - 5.3.4 Analytics & Predictive Maintenance Tools
- 5.4 Services
 - 5.4.1 Integration & Installation
 - 5.4.2 Consulting & Advisory
 - 5.4.3 Maintenance & Support
 - 5.4.4 Training & Education

6 GLOBAL FACTORY AUTOMATION SOLUTIONS MARKET, BY TECHNOLOGY

- 6.1 Introduction
- 6.2 Supervisory Control & Data Acquisition (SCADA)
- 6.3 Programmable Logic Controllers (PLC)
- 6.4 Distributed Control Systems (DCS)
- 6.5 Manufacturing Execution Systems (MES)
- 6.6 Human-Machine Interface (HMI)
- 6.7 Other Technologies

7 GLOBAL FACTORY AUTOMATION SOLUTIONS MARKET, BY APPLICATION

- 7.1 Introduction
- 7.2 Manufacturing Process Automation
- 7.3 Quality Control & Inspection
- 7.4 Predictive & Preventive Maintenance
- 7.5 Supply Chain & Material Handling
- 7.6 Production Analytics & Optimization

- 7.7 Safety & Security Automation
- 7.8 Other Applications

8 GLOBAL FACTORY AUTOMATION SOLUTIONS MARKET, BY END USER

- 8.1 Introduction
- 8.2 Automotive
- 8.3 Electronics & Semiconductors
- 8.4 Food & Beverage
- 8.5 Pharmaceuticals
- 8.6 Chemicals & Petrochemicals
- 8.7 Energy & Power
- 8.8 Packaging & Processing
- 8.9 Metals & Mining
- 8.10 Other End Users

9 GLOBAL FACTORY AUTOMATION SOLUTIONS MARKET, BY GEOGRAPHY

- 9.1 Introduction
- 9.2 North America
 - 9.2.1 US
 - 9.2.2 Canada
 - 9.2.3 Mexico
- 9.3 Europe
 - 9.3.1 Germany
 - 9.3.2 UK
 - 9.3.3 Italy
 - 9.3.4 France
 - 9.3.5 Spain
 - 9.3.6 Rest of Europe
- 9.4 Asia Pacific
 - 9.4.1 Japan
 - 9.4.2 China
 - 9.4.3 India
 - 9.4.4 Australia
 - 9.4.5 New Zealand
 - 9.4.6 South Korea
 - 9.4.7 Rest of Asia Pacific
- 9.5 South America

- 9.5.1 Argentina
- 9.5.2 Brazil
- 9.5.3 Chile
- 9.5.4 Rest of South America
- 9.6 Middle East & Africa
 - 9.6.1 Saudi Arabia
 - 9.6.2 UAE
 - 9.6.3 Qatar
 - 9.6.4 South Africa
 - 9.6.5 Rest of Middle East & Africa

10 KEY DEVELOPMENTS

- 10.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 10.2 Acquisitions & Mergers
- 10.3 New Product Launch
- 10.4 Expansions
- 10.5 Other Key Strategies

11 COMPANY PROFILING

- 11.1 Siemens AG
- 11.2 General Electric Company
- 11.3 ABB Ltd.
- 11.4 Yaskawa Electric Corporation
- 11.5 Rockwell Automation, Inc.
- 11.6 Keyence Corporation
- 11.7 Schneider Electric SE
- 11.8 Bosch Rexroth AG
- 11.9 Honeywell International Inc.
- 11.10 KUKA AG
- 11.11 Mitsubishi Electric Corporation
- 11.12 FANUC Corporation
- 11.13 Emerson Electric Co.
- 11.14 Omron Corporation
- 11.15 Yokogawa Electric Corporation

List Of Tables

LIST OF TABLES

Table 1 Global Factory Automation Solutions Market Outlook, By Region (2024-2032) (\$MN)

Table 2 Global Factory Automation Solutions Market Outlook, By Component (2024-2032) (\$MN)

Table 3 Global Factory Automation Solutions Market Outlook, By Hardware (2024-2032) (\$MN)

Table 4 Global Factory Automation Solutions Market Outlook, By Sensors (2024-2032) (\$MN)

Table 5 Global Factory Automation Solutions Market Outlook, By Controllers (2024-2032) (\$MN)

Table 6 Global Factory Automation Solutions Market Outlook, By Switches & Relays (2024-2032) (\$MN)

Table 7 Global Factory Automation Solutions Market Outlook, By Industrial Robots (2024-2032) (\$MN)

Table 8 Global Factory Automation Solutions Market Outlook, By Field Instruments & Others (2024-2032) (\$MN)

Table 9 Global Factory Automation Solutions Market Outlook, By Software (2024-2032) (\$MN)

Table 10 Global Factory Automation Solutions Market Outlook, By Manufacturing Execution Systems (MES) (2024-2032) (\$MN)

Table 11 Global Factory Automation Solutions Market Outlook, By Human-Machine Interface (HMI) Software (2024-2032) (\$MN)

Table 12 Global Factory Automation Solutions Market Outlook, By Digital Twin & Simulation Software (2024-2032) (\$MN)

Table 13 Global Factory Automation Solutions Market Outlook, By Analytics & Predictive Maintenance Tools (2024-2032) (\$MN)

Table 14 Global Factory Automation Solutions Market Outlook, By Services (2024-2032) (\$MN)

Table 15 Global Factory Automation Solutions Market Outlook, By Integration & Installation (2024-2032) (\$MN)

Table 16 Global Factory Automation Solutions Market Outlook, By Consulting & Advisory (2024-2032) (\$MN)

Table 17 Global Factory Automation Solutions Market Outlook, By Maintenance & Support (2024-2032) (\$MN)

Table 18 Global Factory Automation Solutions Market Outlook, By Training & Education

(2024-2032) (\$MN)

Table 19 Global Factory Automation Solutions Market Outlook, By Technology

(2024-2032) (\$MN)

Table 20 Global Factory Automation Solutions Market Outlook, By Supervisory Control & Data Acquisition (SCADA) (2024-2032) (\$MN)

Table 21 Global Factory Automation Solutions Market Outlook, By Programmable Logic Controllers (PLC) (2024-2032) (\$MN)

Table 22 Global Factory Automation Solutions Market Outlook, By Distributed Control Systems (DCS) (2024-2032) (\$MN)

Table 23 Global Factory Automation Solutions Market Outlook, By Manufacturing Execution Systems (MES) (2024-2032) (\$MN)

Table 24 Global Factory Automation Solutions Market Outlook, By Human-Machine Interface (HMI) (2024-2032) (\$MN)

Table 25 Global Factory Automation Solutions Market Outlook, By Other Technologies (2024-2032) (\$MN)

Table 26 Global Factory Automation Solutions Market Outlook, By Application (2024-2032) (\$MN)

Table 27 Global Factory Automation Solutions Market Outlook, By Manufacturing Process Automation (2024-2032) (\$MN)

Table 28 Global Factory Automation Solutions Market Outlook, By Quality Control & Inspection (2024-2032) (\$MN)

Table 29 Global Factory Automation Solutions Market Outlook, By Predictive & Preventive Maintenance (2024-2032) (\$MN)

Table 30 Global Factory Automation Solutions Market Outlook, By Supply Chain & Material Handling (2024-2032) (\$MN)

Table 31 Global Factory Automation Solutions Market Outlook, By Production Analytics & Optimization (2024-2032) (\$MN)

Table 32 Global Factory Automation Solutions Market Outlook, By Safety & Security Automation (2024-2032) (\$MN)

Table 33 Global Factory Automation Solutions Market Outlook, By Other Applications (2024-2032) (\$MN)

Table 34 Global Factory Automation Solutions Market Outlook, By End User (2024-2032) (\$MN)

Table 35 Global Factory Automation Solutions Market Outlook, By Automotive (2024-2032) (\$MN)

Table 36 Global Factory Automation Solutions Market Outlook, By Electronics & Semiconductors (2024-2032) (\$MN)

Table 37 Global Factory Automation Solutions Market Outlook, By Food & Beverage (2024-2032) (\$MN)

Table 38 Global Factory Automation Solutions Market Outlook, By Pharmaceuticals (2024-2032) (\$MN)

Table 39 Global Factory Automation Solutions Market Outlook, By Chemicals & Petrochemicals (2024-2032) (\$MN)

Table 40 Global Factory Automation Solutions Market Outlook, By Energy & Power (2024-2032) (\$MN)

Table 41 Global Factory Automation Solutions Market Outlook, By Packaging & Processing (2024-2032) (\$MN)

Table 42 Global Factory Automation Solutions Market Outlook, By Metals & Mining (2024-2032) (\$MN)

Table 43 Global Factory Automation Solutions Market Outlook, By Other End Users (2024-2032) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

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